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## Business Analysis

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## Architecture and Business Change

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## IRM UK 2020 Conferences

IRM UK 2020 Conferences

Registration Information
Business Architecture Best Practices: Practical Methods to Enable Business Change

Roger Burton

Overview
Quick and effective business change means that Business Architects must know the interconnections among business elements so that as the business models are updated, they can identify what’s impacted and design with deliberate integrity and reuse in mind. A solid business architecture that assures the avoidance of redundancy, maximizes the sharing of capabilities and makes best use of supporting resources, is essential. With a sound architectural foundation, business-wide transformation, digitalization and continuous optimization can be accomplished and change efforts can progress smoothly. This is a highly participative workshop and will delve into all aspects of Business Architecture, as defined by the Business Architecture Guild’s BIZBOK along with other established and new methods, leaving the participant with the skills required to make Business Architecture disciplined, repeatable and yet practical.

Learning Objectives
- Understand what a straightforward and useful Business Architecture looks like
- Learn how to implement the concepts and practices of the BIZBOK
- Define how the business is organized and how it operates in the context of broader business ecosystems (Operating Model)
- Align what investments in resources the business should make (Resources Model)
- Learn to build information, capability and process architecture models and interconnect them through a business performance lens
- Be able to use the architecture to accelerate change projects and deliver breakthrough digital technologies

Course Outline

Why Business Architecture?
- Enable Transformation, Disruption and need for Innovation
- Requirement for Business Agility

Business Architecture and Related Disciplines
- Zachman, TOGAF
- BIZBOK
- The Business Architecture Landscape
- Workshop: What is your Architecture maturity and readiness?

Architecture Scoping and Value Chain Identification
- Vendor or one Value Chain?
- Intercompany Value Chains?
- Workshop: What Value Chains do you have and what’s in scope for Business Architecture?

Business Strategy Understanding
- Business Ecosystem Analysis: Uncertainties, Scenarios, Opportunities and Threats
- Stakeholder Context Model: Item exchanges
- Stakeholder Value Proposition: Expectations and Experience Assessment, KPIs and Objectives
- Business Motivation Model: Ends before Means?
- Workshop: Who are your stakeholders and what is of value to them?

Framing the Strategy for Business Architecture Consumption
- Developing your ‘North Star’ Goals and Objectives
- Estimating Strategic Capabilities and Requirements
- Choosing your Architecture scenario and plan of attack
- Workshop: What are the Critical Capabilities and Requirements for the Business Architecture?

Business Object/Concept Modeling: The Basis for Information, Capability and Process Architecture Models
- Business Objects
- Concept Model
- Business Vocabulary
- Deriving the Information Model
- Workshop: What is your Business Object/Concept Model?

Business Capabilities
- What is a Business Capability?
- BIZBOK view
- Capability Modeling
- Assuring unique non-redundant Capabilities
- The Burton Capability Hexagon
- Workshop: What are your Business Capabilities?

Business Process Architecture: Value Streams and an End-to-End view
- Value Streams and Business Processes: BIZBOK view
- Stakeholder Journeys and Lifecycle
- Value Streams and Value Stream Stages
- Deriving a value-focused Process Architecture
- Using Business/Industry Frameworks
- Examples of real company Architecture
- Workshop: What are your Value Streams and End-to-End Processes?

Alignment to Decisions and Business Rules
- Policies, Decisions and Business Rules and their architectural alignment
- The Operational Decision Questions Hierarchy
- Workshop: Articulating critical Decisions and Business Rules?

Business Performance Models
- Characteristics of Good Performance Indicators
- The new Balanced Scorecard
- Lagging and Leading Indicators
- Measurement Traceability to Strategic Objectives
- Measuring Operating Processes
- Workshop: What is your Performance Scorecard?

Alignment of Business Architecture with IT Enablement
- Services, Microservices and APIs
- BPM (process engines)
- BRMS (rules engines)
- Business Activity Monitoring and Analytics (measurement)
- ERP

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- 3rd course: 15%
- 4th course: 20%
- 5th+ course: 25%

Group Booking Discount
- 2-3 Delegates: 10%
- 4-5 Delegates: 20%
- 6+ Delegates: 25%
- Only one discount can be applied at any one time

Presenters
Roger T Burton is the co-founder of BPTrends Associates, founder of Process Renewal Group and the author of Business Process Management: Profit from Process. He is considered an industry leader in the introduction of innovative approaches for organizational change. To date, he has conducted over seven hundred seminars and has presented to over fifty thousand professionals. His seminars have been on the subject to life.

Kay Butterworth, Business Architect, Department for Work and Pensions

Dave Magoon, Business Architect, Department for Work and Pensions

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02
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Mastering the Requirements Process: Getting Requirements Right

James Robertson and Adrian Reed

Overview

Requirements is the most crucial part of development. Requirements today is about uncovering the real needs of the problem space, understanding the needs of the people who use your solution, recognising the environment for the solution, then, in a timely manner, delivering requirements that are concise, clear and testable. This workshop, presented by a real business analyst, gives you a thorough and well-established process for uncovering the real requirements, testing them for correctness, and ensuring that all the requirements have been discovered. The process is used with variations by both agile and traditional projects. It starts with the business, for it is only within the business that you discover the real needs. When you know the real needs, it becomes possible to determine what will best serve those needs, and to write the requirements or stories to build the right solution.

Learning Objectives

- Determine the real needs of your stakeholders
- Understand the role of the business analyst in agile projects
- Write agile stories that are more effective and accurate
- Write requirements that are complete, traceable, and testable
- Learn diverse elicitation techniques to uncover the real requirements
- Use the Volere Knowledge Model to ensure you have all the needed information, and nothing that is not needed
- Understand the need for, and how to write, functional and non-functional requirements.
- Precisely define the scope of the problem
- Discover all the stakeholders and keep them involved
- Uncover the essence of the business
- Use prototypes, sketches and storyboards to discover hidden needs
- Use state of the art requirements techniques
- Get the requirements quickly, and incrementally
- Write the right requirements and stories

Course Outline

The Requirements Process
- An overview of the process for gathering and verifying requirements
- A discussion on how this process can fit into your organization
- A demonstration of how requirements fit into agile processes

Project Blast-Off
- Scope, Stakeholder, and Goals; the holy trinity of requirements gathering
- How to define a precise scope for the business area to be studied
- How to “Step Back” for a better look at the business
- How to use stakeholder maps to find all the stakeholders
- How to ensure the project’s goal is measurable and testable

Trawling for Requirements
- How to use business events and business use cases to find the right business
- How to use apprenticing, workshops and other elicitation techniques
- Using the Brown Cow model to see the work more clearly
- How to be more innovative with requirements

Functional Requirements
- Use case scenarios, and how they are used to find the right product to build
- Determining the system boundary
- How to find the requirements, and write them clearly
- How to write requirements, not solutions
- How to handle requirements for agile projects

Non-functional Requirements
- The importance of non-functional requirements
- Usability, look and feel, performance, security and other non-functional requirements
- How to find the non-functional qualities the product must have

Non-functional Requirements
- How to write the right requirements and stories
- Role of the business analyst in agile
- Writing better user stories
- Prototypes and Deviations
- Using sketches and prototypes to drive requirements
- Low and high-fidelity prototypes
- Exceptions, alternatives and misuses

Writing Requirements
- Communicating requirements
- Correct formulation of requirements
- How to write fit criteria to make your requirements precise and accurate

The Quality Gateway
- How to test requirements and ensure that they are fit for purpose
- How to prevent scope creep
- How to avoid gold-plated requirements that add little value to the system
- How to ensure the requirement is a complete statement of need

Managing Your Requirements
- Strategies for requirements projects
- Using the Requirements Knowledge Model to manage your requirements

Prioritising requirements
- Dealing with conflicting requirements
- Automated requirements tools

Your Requirements Process
- Making your own process more effective
- Incorporating your organisation’s requirements practices into what you have learned

Audience

If you want to be involved in delivering the right systems—the ones that get used, then this course is for you. Typical delegates include:

- Business Analyst
- Agile Team Members
- Systems Analyst
- Requirements Manager
- Requirements Engineer
- Project Leader / Manager
- Product or Program manager
- Product Owner
- Consultant

Special Features

- Your instructor is not an “announcer”. He or she is a practicing business analyst who also happens to be an excellent instructor.
- The course is written to show real-world situations and provide real-world solutions. You will be able to relate your own work situation to the course.
- You can discuss your own requirements issues with your instructor.
- You learn that requirements come from understanding the business and its internal processes, and how the business interacts with its external customers.
- The course provides a realistic framework for requirements discovery, not a strict methodology. The framework provides the freedom and encouragement to adapt to your own organizational needs.
- The techniques are applicable regardless of your development method – agile, traditional or anything else.
- The Brown Cow model to give you different and beneficial ways to look at the problem
- The Volere requirements knowledge model which ensures you collect the right information, and the right amount of it.
- You receive the Volere Requirements Specification Template (downloaded over 20,000 times) with advice on how to make this your own template.

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.

Via Live Streaming Only

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Live Streaming Fee £1.295 + VAT
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18-19 March 2021
Working with Business Processes
17-18 May 2021
Advanced Business Process Techniques
20-21 May 2021

Special Features

- Lively, knowledgeable, articulate - absolutely excellent
  Steve Cooe, Requirements & Testing Manager, Department of Work & Pensions
- One of the best!
  Helena Bone, Senior Business Analyst, HBOS General Insurance
- Good mix of lectures and workshops. Never felt bored - time flew. Very easy to listen to and obviously ‘knew his stuff’.
  Sharon Sane, Business Analyst, Aegon UK
Pre-Project Problem Analysis: 
Practical Techniques for Early Business Analysis Engagement

Adrian Reed

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6+ Delegates 25%
Only one discount can be applied at any one time

Presentation
Adrian Reed is a true advocate of the analysis profession. He is a Principal Consultant and Director at Blackmetric Business Solutions where he provides Business Analysis consultancy and training solutions to a range of clients in varying industries. Adrian is Immediate Past President of the UK chapter of the IIBA and he speaks internationally on topics relating to Business Analysis and business change.

Overview
Increasingly, organisations are operating in fast-moving and often volatile business environments. Project teams need to respond quickly to tricky and often ill-defined problem situations, enabling the organisation to adapt and meet the ongoing demands of its customers and environment. In these contexts the pre-project stage is crucial: For our change initiatives to be successful, we need to truly understand the problem we are trying to solve. By understanding the problem we can ensure that any future project activity is built upon a firm foundation, and is heading towards a set of goals that are concise, precise and have been agreed upon.

This practical, hands-on workshop, focusses on the problem-solving skills that practitioners need in order to collaboratively explore and describe problems, and to co-create potential options for improvement. These skills are extremely valuable pre-project and early in the project lifecycle, and this course will be of interest to business analysts and other practitioners who help analyse, assess and solve tricky organisational problems.

Learning Objectives
- Understand what pre-project problem analysis is, and its significance in the analysis and project lifecycle
- Understand the importance of stakeholder identification, categorisation and management
- Be able to use a range of problem analysis techniques to understand problem situations
- Be able to define a problem using a ‘problem statement’ and understand how successful outcomes can be articulated with Critical Success Factors and Key Performance Indicators
- Understand what a Business Use Case diagram is and understand its value in articulating scope during pre-project problem analysis
- Use a 1 page ‘Project Concept Summary’ template to bring together a potential project idea onto a page

Course Outline

Introduction
- What is ‘Problem Analysis’?: A brief introduction to the course, and a discussion of why it is important that we analyse the problem before assuming or implementing a solution

Stakeholders in Problem Analysis
- Identifying Stakeholders: Tips for identifying likely stakeholders, along with suggestions of potential ‘generic’ stakeholder types that regularly warrant consideration
- Stakeholder Analysis: Categorisation of stakeholders
- Communication/Engagement Planning: Planning how to liaise with stakeholders in the early stages of problem investigation
- Power & Politics: Discussion of how power & politics can affect problem solving, and how it affects us as practitioners

Understanding the Problem Situation
- Elicitation Techniques: Overview of a range of techniques for eliciting information about a problem situation (Interviews, Workshops, Observation, Document Analysis)
- Categorising Problematic Situations: The difference between a ‘difficulty’ and a ‘mess’
- Problem Analysis Techniques: Practical overview of:
  - 5 Whys
  - Fishbone Diagram
  - Multiple Cause Diagram
  - Causal Loops
- External Environment Analysis: Practical overview of STEEPLE technique for analysing the broader business or organisational context
- Perspectives: The importance of understanding that different stakeholders may perceive the problem situation differently
- Defining the Problem: Overview of a typical ‘Problem Statement’, along with a discussion of pros/cons and when it is most useful
- Defining Success: Critical Success Factors (CSFs), Key Performance Indicators (KPIs), Balanced Business Scorecard

Defining Business Requirement Scope
- Roles & Goals: Defining the ‘roles’ that are involved in the problem space and their (business) goals
- Business Use Case Diagram: Introduction to Business Use Case diagrams as a way of scoping out the high level business requirements on a problem situation/potential project concept
- Requirement Types: Brief discussion of other requirement types that may emerge early in the project lifecycle

Identifying Areas for Change
- Gap Analysis: Comparing the output from the techniques in previous sections to identify areas where change is desirable
- Existing Solution Evaluation: Discussion on approaches for benchmarking/measuring existing solutions to determine where improvement may be needed

Generating Improvement Ideas
- Creative Thinking Techniques: Techniques for generating a range of potential ideas for improvement:
  - Brainstorming
  - Brainstorming Enhancers
- Types of Improvement Approach: Discussion of the breadth of improvement approaches that are generally available, which is often wider than initially anticipated. Discussion on feasibility: What might stop or inhibit an approach being acceptable

Bringing It All Together
- Project Concept Summary: Overview of a one page ‘project concept summary’ outlining the problem, likely requirement scope, and potential solutions
- Validation: How to ensure the ‘project concept summary’ is validated by key stakeholders
- Next steps: What next after the ‘project concept summary’

Audience
This course is well suited for anyone needing to understand how to undertake problem analysis early in the project lifecycle. It will be of particular interest to BA teams that are looking to ‘left shift’ and seek early engagement. Typical delegates include:
- Business Analysts
- Business Systems Analyst
- Consultants
- Requirements Manager
- Requirements Engineers
- Product Owner

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
Overview
This course will address what degree of process work is required for today's organizations striving to establish digital business capabilities to optimize the end to end customer journey and leverage resources in the most effective manner. It will emphasize the customer aspects of the challenge given that customers are no longer recipients of what we do but are key actors with us in doing it. They are part of newly conceived business processes in partnership with us. We have to design shared processes with them in mind. This course deals with the development of digitalized processes and services. It does not address digital strategies or digital architecture directly.

Learning Objectives
- Build a customer journey and find moments of truth
- Segment customer types and define personas
- Understand existing customer bottlenecks and constraints and opportunities to remove them
- Identify potentially useful digital technologies
- Design end to end value stream processes that start and end with the customer process
- Reconceptualise the customer interaction with our processes
- Recognize genuine design constraints from other outside stakeholders
- Deal with behavioral and cultural change
- Define the change program

Course Outline

The Digital Challenge
- Drivers and Trends of Digitalization
- Digital Strategy
- Digital vs Digitalization
- Some definitions and truths
Examples: Uber, Airbnb and other usual suspects

Process Methodology Response
- Traditional approaches
- Process Analysis and Design for the digital world
- The Concept Model as home base
- The Burlton Capability Hexagon

Case study Workshop: Developing your concept model

Understand: Stakeholders, Vision and Scope
- Value Chain and the scope of your included processes
- External Stakeholders classification
- Segmentation and Personalization
- The use of Personas
- Customer needs and value proposition
- Customer experience
- The North Star for your design
Example: Ordering of customized confectionery

Case study Workshop: Analyzing the Stakeholders
Case study Workshop: Developing the North Star

Analysis: Modelling and Analyzing the Process
- How much current analysis and modeling is needed
- Analysis and Modeling options
- Dealing with the data
Case study Workshop: Analysing the current capability

Customer Process Experience Baseline
- A typical Customer Experience pattern
- Finding Moments of Truth
- The Customer Journey map
- Attributes of a great customer experience

Case study Workshop: Developing the Customer Journey

Customer Process Experience

Digital Inspirations
- Digital Solution Patterns and Benchmarks
- Omni-Channel characteristics
- Mobile characteristics
- RPA (Robotic Process Automation) characteristics
- AI and Cognitive characteristics
- Automating Decisions and Business Rules
- Additional Technology potential
Example: Mortgage Decisioning Redesign

Design the Process and Capabilities
- Small Change vs Substantive change
- Design principles
- Creative workshops to leverage the inspiration
- The new digital process
- Designing measurement and feedback
- Detailed mapping
- The required capabilities and resources
Example: Justice System peer to peer case resolution

Case study Workshop: Developing the digitalized process workflow
Case study Workshop: Validating with the process scenarios
Case study Workshop: Defining the digitalized process capabilities and resources

Culture and Behavioural Change
- Developing the competencies: the core skills needed
- Specifying the group behaviour as a set of requirements
- Overcoming internal stakeholder concerns
- Communication: what to say and when
- Sustaining the journey: measuring, monitoring and coaching
Example: Board of Directors Digitalization

Implementation Options
- Digital Base Capabilities
- The role of BPM, Decision and Rules engines
- Standards and Protocols
- Technical Foundation

Audience
- Process Analysts and Designers
- Business Analysts
- Business Leaders
- Agilists
- Business Architects
- Anyone else concerned with designing and sustaining an agile business

This class will be of benefit to professionals and managers of all types involved with designing and developing digitalized business processes.

Special Features
- Modernizes process analysis and design work to optimize digital processes
- Deals with customer-in-command processes and business solutions: Journeys and Experiences
- Minimizes Process Analysis for Digital Process to very enough of what you really need?
- Brings a wealth of opportunities for Process Innovation
- Features several examples of digitalized processes
- Involves a series of hands on progressive exercises in designing a digital process solution

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
**Overview**
Delegates to this course will first learn exactly what a “business process” is, and techniques to effectively convey the concept to others. The key factors to consider when working with processes and how to avoid the most common pitfalls are also introduced. On this foundation, the course then shows how to discover and scope a business process, clarify its context, assess it and establish improvement objectives, apply various approaches for modelling it to an appropriate level of detail, re-assess it in light of findings from modelling, and employ a structured approach to designing a new process. A modular, “feature-based” approach to process design is described that delivers significant change in Agile timeframes, often in as little as a few days. Everything is backed up with real-world examples, repeatable guidelines, workshop exercises, and group discussions.

**Learning Objectives**
- Identify a "true" business process, and specify its boundaries and goals
- Describe the key factors that differentiate process and functional approaches
- Employ a variety of techniques to keep stakeholders involved, and promote "process orientation"
- Establish the scope, issues, and goals for a business process
- Model process workflow at progressive levels of detail using Swimlane Diagrams
- Stop process modeling at the appropriate point, and move on to other techniques or phases
- Conduct a structured assessment of a business process
- Transition to the design of a new process while avoiding common (and serious!) pitfalls

**Course Outline**

**Business Processes – What They Are and How to Discover Them**
- Variations on what is meant by "process" Guidelines for well-constructed business processes
- Impacts of incorrectly identifying business processes
- Example – using this method in identifying "true" business processes
- Summary of six rules for business processes

**Working with Business Processes – Frameworks, Difficulties and Methods**
- Two perspectives: functional (skills and resources) and business process (results and value)
- Recognising the two – philosophies and methods for helping functions and processes get along
- Impact of business processes for application and process architects
- Introduction to process modeling techniques – decomposition, flow, and other techniques
- Progressive detail – working through the scope, concept, and specification levels
- Understanding the six enablers of a business process – a critical framework
- Methodology overview – a three-phase approach to completing a process-oriented project

**Discovering your Enterprise’s Business Processes**
- Depicting ‘process areas’ with an ‘overall process map’ or ‘process landscape’
- Using ‘off the shelf’ frameworks
- Contrasting top-down and bottom-up methods for process discovery
- When to use one-on-one interviews, when to use group sessions
- Beginning your analysis by clarifying terminology – a structured approach
- Process patterns and inter-process relationships that will emerge

**Framing the Process – Determining Scope, Issues, and Goals**
- Separating the “what” from the “who and how”
- Defining “what” (the essence) and ‘who and how’ (the current implementation)
- Case study – defining process scope
- Initial assessment of the ‘as-is’ process and goal-setting for the ‘to-be’ process
- Clarifying strategic direction – the process "differentiator"
- Issues and opportunities in applying the differentiator framework to a business process

**Case study – process assessment, goals, and differentiator**

**Workflows & the Essentials**
- The philosophy behind workflow models ("swimlane diagrams") – why we really do it
- Three most common errors in workflow modeling, and three keys to success
- Real examples of effective and ineffective process flow models
- Getting started – three questions to drive your initial swimlane diagram
- The three questions in practice – a real example
- Knowing when to stop – controlling the detail of your models
- Real example – what happens when detail gets out of control
- Three levels of workflow model ("handoff", "service", and "task") with examples and guidelines
- A warning sign that you’ve crossed the line and aren’t modeling workflow anymore
- Making the transition to use cases, procedures, work instructions, and other job aids
- Recap – the three questions to drive your initial "handoff level" workflow model

**Case study – hands on practice with developing the initial workflow model**
- Five more questions to validate and extend the initial model
- Case study – hands on practice with refining the initial workflow model

**Transition to Process Design**
- Three common redesign problems, three techniques to avoid them
- (1) Enabler-based assessment of the as-is process – a proven framework and its role in redesign
- A decision point – five options for going forward
- (2) Challenging process assumptions – a critical technique for generating creative improvements
- (3) Uncovering unanticipated consequences – an enabler-based assessment of characteristics
- Finalising to-be process characteristics in a "process requirements document"
- Case study – assessing the as-is and characterizing the to-be process

**The to-be workflow – from characteristics to workflow model**
- A reminder – factors to make the new process sustainable

**Presenter**
Alec Sharp’s expertise includes business analysis, data modelling, project recovery, facilitation, and, especially, business process change. In addition to his consulting practice, he conducts top-rated workshops and conference presentations on five continents a year. Alec is the author of Workflow Modeling, second edition which is widely used as a consulting guide and university text.

**“Excellent. Best seminar ever attended. Outstanding, engaging, knowledgeable, inspiring.”**
Stella Reynard, Business Analyst, Aveva

**“An outstanding, engaging lecturer. Very impressive.”**
Ian Wells, Business Analyst, European Bank for Reconstruction & Development - UK

**“Quite simply the best seminar I have been on. Used techniques I’ve never seen used before to engage the audience, keep us entertained, help us learn and understand and... make us laugh. I was expecting great things and it delivered.”**
Susan Allan, Business Systems Manager, Wood Group PSN

**Business Analysts** who are responsible for requirements specification or are involved in business process re-design or improvement.

**Business and Process Architects** responsible for establishing frameworks and direction for enterprise processes

Business Managers and Content Experts who will participate in process re-design or process-oriented application development efforts.

**Prerequisites:** There are no prerequisites in this course. However, Business Analysts who expect to do extensive process analysis will find that some understanding of information systems concepts may be helpful in establishing context.

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**In-House Training:** This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.

Working with Business Processes: Process Change in Agile Timeframes
Via Live Streaming only

17-18 May 2021
Fee: £995 + VAT
Group Booking & Multiple Seminar Discounts Available

**Business Architecture Public Courses via Live Streaming**

Business Architecture Best Practices 19-21 April 2021
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2-3 Delegates 10%
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6+ Delegates 25%
Only one discount can be applied at any one time

**Price: £995 + VAT**

**Framing the Process – Determining Scope, Issues, and Goals**
- Separating the “what” from the “who and how”
- Defining “what” (the essence) and ‘who and how’ (the current implementation)
- Case study – defining process scope
- Initial assessment of the ‘as-is’ process and goal-setting for the ‘to-be’ process
- Clarifying strategic direction – the process “differentiator”
- Issues and opportunities in applying the differentiator framework to a business process

**Case study – process assessment, goals, and differentiator**

**Workflow Models – the Essentials**
- The philosophy behind workflow models ("swimlane diagrams") – why we really do it
- Three most common errors in workflow modeling, and three keys to success
- Real examples of effective and ineffective process flow models
- Getting started – three questions to drive your initial swimlane diagram
- The three questions in practice – a real example
- Knowing when to stop – controlling the detail of your models
- Real example – what happens when detail gets out of control
- Three levels of workflow model ("handoff", "service", and "task") with examples and guidelines
- A warning sign that you’ve crossed the line and aren’t modeling workflow anymore
- Making the transition to use cases, procedures, work instructions, and other job aids
- Recap – the three questions to drive your initial "handoff level" workflow model

**Case study – hands on practice with developing the initial workflow model**
- Five more questions to validate and extend the initial model
- Case study – hands on practice with refining the initial workflow model

**Transition to Process Design**
- Three common redesign problems, three techniques to avoid them
- (1) Enabler-based assessment of the as-is process – a proven framework and its role in redesign
- A decision point – five options for going forward
- (2) Challenging process assumptions – a critical technique for generating creative improvements
- (3) Uncovering unanticipated consequences – an enabler-based assessment of characteristics
- Finalising to-be process characteristics in a “process requirements document”
- Case study – assessing the as-is and characterizing the to-be process

**The to-be workflow – from characteristics to workflow model**
- A reminder – factors to make the new process sustainable
Advanced Business Process Techniques
Aligning Process Work with Strategic, Organisational and Cultural Factors
Alec Sharp
Via Live Streaming only

Overview
Many organisations radically improve their performance through business process change initiatives, while others fall short. It’s easy to blame failure on technical factors, but they are almost never the prime causation. Experience shows three recurring themes in successful initiatives:
- True end-to-end processes were identified, and the right ones were selected for transformation;
- A holistic approach balanced technical factors with human, organisational, and cultural factors;
- That holistic understanding was reflected in an implementable and sustainable process design.

This intensive workshop provides proven, repeatable methods for successful business process change in Agile timeframe, well beyond what is covered in introductory courses. Throughout, the emphasis is on methods that support shared understanding and engagement, leading to improved support for change. Specific techniques for discovering and assessing individual behaviour and organisational culture are a cornerstone of this unique workshop. Participants will be well-prepared for the challenges of successful business process change. In fact, many organisations apply techniques learned in this workshop to all of their organisational change initiatives.

Topics will be covered with a discussion of the issue, a review of techniques, guidelines and examples, a brief workshop exercise, and a group solution and debriefing. The emphasis is on maximizing the delivery of content while keeping everyone engaged.

Real-life case studies are employed throughout – some participants say the examples of how the techniques are applied in practice is the best part of the workshop.

Learning Objectives
- Understand how to communicate business process concepts with executives, managers, and individual contributors in a way that stimulates interest and builds support for change.
- Learn objective criteria for an end-to-end process, and top-down and bottom-up methods for discovering business processes and rapidly developing a process architecture.
- Learn how to encourage support for business process change at every stage of an initiative, and the critical importance of a “what first, who and how next, only then why?” approach.
- Understand a practical and agile business process change methodology incorporating specific techniques for addressing human, organisational, and cultural factors.
- Become familiar with the techniques for rapidly building relevant, accessible process models, especially at the scope (context) and conceptual (understanding) levels.
- Become familiar with the techniques for designing a future-state process, and how they are applied in a proven, step-by-step method.

Course Outline
Communicating about “Business Process” with Executives, Managers, and Individual Contributors
- Why senior executives (and everyone else) often misunderstand “process”
- Five key points to cover in an executive briefing
- Winning over the masses – why people fear “process,” how to get them on board
- Business Process within a framework for Business Analysis

Discovering Processes and Developing a Process Architecture
- “Process” fundamentals, components, conventions, and a process architecture taxonomy
- A bottom-up approach to process discovery
- Using standard frameworks and generic models in top-down approaches
- Exercising caution when using “off-the-shelf” process reference frameworks
- Case study – a multi-pronged approach to building a process architecture within tight budget and time constraints
- Methods for assessing, prioritizing, and selecting processes for transformation
- Case Study – Using the Process Architecture to assess and support a new initiative

Building Support for Change into Your Business Process Methodology
- Five techniques to avoid
- Seven specific techniques to build support for process change
- The power of “ventriloquing”
- What first, who and how later – abstraction to the essence
- How to build a compelling and blame-free Case for Change that answers why?
- Clarify what you need to be great at – the process’ strategic differentiator
- Understand enablers – the levers of change, and the ones that matter most
- Frameworks for assessing culture and beliefs, and their impact on business processes
- A people-centered, feature-based approach to process design
- The locally procedure and its impact on organisational culture

Process Modelling for People – Methods to Maximise Stakeholder Engagement
- Avoiding the common errors in process modelling / process mapping
- “Scope before flow” – how and why to build a “Process Scope Model” and a “Process Summary Chart” before modelling process workflow
- The “Augmented Scope Model” and why it’s often an effective alternative to flow modelling (“swimlane diagramming”)
- When and when not to use BPMN, UML, and other technically-oriented approaches
- “Flow first, detail later” – a fast approach to building a first-cut flow model and then refining it
- Progressive detail in flow models, and the role of scenarios and process instance models
- Conventions for comprehension in process model graphics
- When to stop process mapping and shift to other forms

Designing an Implementable and Sustainable Business Process
- Five common difficulties with process design / redesign
- Seven common process problems to look out for
- Using a structured, enabler-based assessment of the as-is process to generate creative ideas for the to-be
- Characterizing the to-be process – generating and describing features of the to-be process
- Uncovering unanticipated consequences – an enabler-based assessment of features
- Establishing the essence (the “what”) of the to-be process before determining “who and how” (context)
- A real-life case study illustrating the methodology
- A checklist for ensuring the process is sustainable

Audience
Anyone involved in Business Process Change and Business Process Management (BPM), especially:
- Business Process Analysts and Designers
- Business Analysts
- BPM professionals
- Business Architects
- Process Architects
- Information Systems Architects

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Only one discount can be applied at any one time

Presented by
Alec Sharp, a senior consultant with Clariteq Systems Consulting, has deep expertise in a rare combination of fields - business process analysis and redesign, strategy development, application requirements specification, and data modelling. His 35 years of hands-on consulting experience, practical approaches, and global reputation in model-driven methods have made him a sought after resource in locations as diverse as Ireland, Illinois, and India. He is also a popular conference speaker, mixing concepts and insight with irreverence and humor. Among his many top-rated presentations are the “Lost Art of Conceptual Modeling,” "Modelling Failure," "Getting Traction for Process" – What the Experts Forget,” and “Mind the Gap! - Integrating Process, Data, and Requirements Modeling.” Alec literally wrote the book on business process modelling – he is the author of “Workflow Modeling: Tools for Process Improvement and Application Development – second edition.” Popular with process improvement professionals, business analysts, and consultants, it is consistently a top-selling title on business process modelling, and is widely used as an MBA textbook. The completely rewritten second edition was published in 2009, and has a “5-star Amazon” customer rating. Alec was also the sole recipient of DAMA’s 2010 Professional Achievement Award, a global award for contributions to the Data Management field. Alec’s popular workshops on Working With Business Processes, Data Modeling (introductory and advanced), Requirements Modeling (with Use Cases and Business Services), and Essentials of Facilitation and are conducted at many of the world’s best-known organizations. His classes are practical, energetic, and fun, with a most common participant comment being “best course I’ve ever taken.”
Overview

Enterprise Architecture is fundamental for enabling an enterprise to assimilate internal and external changes in response to the dynamics and uncertainties of the information age environment. Enterprise architecture not only constitutes a baseline for managing change but also provides the mechanism by which the reality of the enterprise and its systems can be aligned with management intentions. This updated workshop is based on the Zachman Framework V3.0, and incorporates actual modelling practice. The workshop consists of 6-8 hours of guided self-learning through a series of videos and assignments and culminates in a three-day instructor-led workshop. The workshop is based on actual Enterprise experience and is designed to give the participants hands-on experience creating both "Primitive" (architecture) models as well as "Composite" (implementation) models. The workshop prepares delegates for both levels of the Zachman Certified—Enterprise Architect program: Zachman Certified™ — Enterprise Architect Associate (Level 1) and Zachman Certified™ — Enterprise Architect Professional (Level 2). The certification fee both Level 1 & Level 2 are included in the registration fee. The "Zachman Certified — Enterprise Architect" examination is a two hour, online examination that upon passing, results in the award of Enterprise Architect Associate (Level 1) Certification. Delegates will then subsequently be awarded the Enterprise Architect Associate (Level 2) Certification upon submitting a case study. If you want to understand the "Complexity & Contradiction" in Enterprise Architecture and are struggling to manage a non-adaptive enterprise and dysfunctional systems, this will be an essential experience! Learn how an ontology allows you to make use of multiple frameworks (e.g. architecture, sales, software development, innovation, etc.) In an enterprise.

Learning Objectives

- Identify the sense of urgency for aggressively pursuing Enterprise Architecture
- Identify a comprehensive definition (description) of Enterprise Architecture
- Differentiate between Enterprise Architecture from Systems Implementation
- Differentiate an Ontology from Methodology
- Utilizing Enterprise Architecture for operational decision making
- Identify the elements for creating a strategy for reducing "time-to-market" for systems implementations to virtually zero
- Create a strategy for integration beyond jurisdiction (Interoperability)
- Identify architectural principles for meeting enterprise requirements
- Develop traceability across the artifacts for impact analysis and change management
- Employ primitive problem patterns to address complex issues facing any enterprise.

Course Outline

Setting the Context for Enterprise Architecture (EA)
- The contribution of IT People to an Information Age Enterprise
- Global Environment: Escalating Complexity and Escalating Change
- Applying the Concept of Mass-Customization to the Enterprise

Introduction to Enterprise Architecture (The Zachman Framework V3.0)
The Zachman Framework is perhaps the most referenced in the industry. This session provides participants with a unique opportunity to learn first-hand about its concept and utility, directly from the man who developed it. Discussions include version 3.0 of the framework and its evolution.
- Definition of Enterprise Architecture
- The Zachman Framework – Architecture Is Architecture Is Architecture
- Ontologies Versus Methodologies

Workshop:  Row 1: Models: Defining enterprise scope and developing the enterprise lexicon
- Workshop:  Row 2: Defining business concepts and business value
- Workshop:  Row 3: Developing enterprise logic to support technology and implementation decisions.

Enterprise Engineering
- Models from My Bookshelf – 75 years of experience (Implementation, Composite Models)
- The Elegance of Primitives (Their essential contribution)
- Enterprise Entropy – Removing Internal Cost of Operations
- Enterprise Engineering Design Objectives
- Alignment, Integration, Reusability, Flexibility, Interoperability
- Reducing Cycle Time from Order to Implementations (Mass-Customization)
- Implementation Practicalities
- "Federated Architecture" (Integrating Beyond Jurisdictional Boundaries)
- Migrating from Legacy to Architecture

Workshop: Using Primitives to create horizontal Integration and Vertical Transformation
Case Study: Application Rationalization Using Primitives
Workshop: Identify Framework Cells for Given Enterprise Problem Definitions
Workshop: Using Primitives to solve for enterprise entropy

Presenters

John Zachman, the originator of the "Framework for Enterprise Architecture" which has received broad acceptance around the world as an integrative framework, or "periodic table" of descriptive representations for Enterprises.
Cort Coghill, a Director of FEAC Education Operations, He is also one of the very few Zachman Certified - Enterprise Architect Educators (Level 3) in the world, setting Cort apart as one of the foremost experts on the Zachman Framework, in both education and project work.

Audience

- CIOs
- Enterprise Architects
- Chief Architects
- Business Architects
- IT Architects
- Process Architects
- Application Architects
- Solution Architects
- Software Architects
- Technology Architects
- Data Architects
- Business Analysts
- System Analysts
- IT Strategists
- Business Strategists
- Strategic Planners
- Program Managers
- Information Systems Management
- Business Process Managers
- Data, Applications, Technology Management
- Consultants

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Architecting the Digital Business Platform

Michael Rosen

Via Live Streaming only

Overview
Is your organization planning, initiating or undergoing a digital transformation initiative? Then you know how important architecture and technology is to building a sustainable foundation. Yet so much has changed in the past 2 or 3 years that it’s hard to know what that should look like anymore. The environment is now part of a larger business ecosystem. Scale, speed, and scope are greatly expanded. AI and cognitive technologies are everywhere. Business architecture is different. Information and data architecture are different. Application architecture is different. Technology architecture is different. Security architecture is different. And, how they all fit together is different too. This workshop answers two key questions:
1. What does architecture for a digital transformation platform look like?
2. How can you keep up to speed on all the changes that implies?

This workshop briefly explores the requirements for the new digital economy, and then describes the new “Digital Business Platform” necessary to meet those requirements and sustain success. Continuing from there, it lays out the overall architecture needed to create that platform and goes into detail about the new business, information, application, technology, performance, and security architectures that comprise it. A detailed case study is woven throughout the workshop to illustrate the platform, architectural tradeoffs, and a wide variety of work products across all domains. Interactive exercises will give attendees an opportunity to use the new techniques in real time.

Learning Objectives
- How the Digital Economy requires a new platform and architecture
- The overall architecture for the “Digital Business Platform”
- How to use business architecture to evaluate and plan digital transformation opportunities and options and shape the platform requirements
- The new information and data architecture to support an intelligent core and the ‘sense, compute, act’ paradigm and typical usage patterns that drive tradeoffs,
- Performance architecture for providing real time reporting on key enterprise business outcomes
- Application architecture in the era of microservices, containers, APIs, DaaS, FaaS, PaaS.
- Cloud and hybrid architecture technologies for a sustainable, scalable, reliable flexible business platform.
- Security architecture to ensure Digital Trust, including Intelligence AI, and SECAAS.

Course Outline

What is Digital Transformation?
- Digital Transformation defined
- Dimensions of transformation
  - Business Model, Operating Model, Information, Technology

The new Digital Business Platform
- Intelligent core, Integration, Development, Engagement

Architecting the new Digital Business Platform
- The new architecture framework
- 5 S’s of architecture transformation
- Sense, Compute, Act: The new paradigm

Value Proposition
- Canvas
- Identifying Customer, Pain and Gain
- Products and Services
- Workshop

Business Models
- Digital Business Models
- Business Model Canvas
- Evaluating Opportunities
- Workshop

Operating Models
- Digital Operating Models
- Operating Model Canvas
- Workshop

Business Architecture
- BA overview
- Articulating strategies
- Value Stream workshop
- Capability framework
- Capability workshop
- Retail Case Study

Planning strategy to execution
- Value based planning
- Performance Architecture
- Outcomes, Critical Success Factors, KPIs
- Business Motivation Model
- Performance framework

Information Architecture
- Decision Centric Computing
- Cognitive approaches
  - AI, ML, DL
- Intelligent Automation Workshop
- Data lakes
- Data patterns

Application Architecture
- Microservices, services, and APIs
- CaaS, FaaS
- PaaS
- DevOps
- Rationalization and Technical Debt
- Technology Architecture
  - Hybrid solutions
  - Cloud transition strategies
  - Integration
  - Edge

Security Architecture
- State of cybersecurity
- Four disciplines of security management
- Security economics
- Digital trust
- GDPR
- Blockchain

Conclusion

Audience
Attendees should have an understanding of Enterprise Architecture and a familiarity with a variety of architectural model and deliverables. Typical delegates include:

- Enterprise Architects
- Business Architects
- Information Architects
- IT Architects
- Application Architects
- Business Analysts
- Strategic Planners
- Business Leaders
- IT Executives
- Anyone else concerned with designing and sustaining an agile digital transformation

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Only one discount can be applied at any one time

Presenter
Mike Rosen is Chief Scientist at Wilton Consulting Group, providing advice to CIOs, IT Leaders, and Architects on creating the new Digital Business Platform, using architecture as a tool for digital transformation and improved decision making. He is also a Founding Member and VP of the Business Architecture Guild. Mr. Rosen has more than 35 years of technical leadership experience architecting, designing, and developing solutions, applications, and products. He was previously CTO at startup AZORA Technologies and chief architect, product architect, technical leader, and developer for commercial middleware products from IONA, BEA and Digital. Mr. Rosen is a well-known international speaker and author of 3 books and hundreds of articles.
Overview
Is your organization planning to, or already underway with Agile development and / or DevOps? Does it seem like an excuse not to do architecture, analysis or design? At a project level, you’re building things faster, but at an enterprise level, you don’t know if you’re building the right things, or instead, just going faster at creating redundancy and inconsistency. While speed is important, it is the right things at the right speed -- the “speed of business change” -- that is critical to success in the new digital economy. And, while DevOps is a critical component of any business or digital transformation initiative, it is not incompatible with, in fact it is better with, architecture and design.

BizOps extends the continuous feedback, faster cycle time, and tighter integration atmosphere, mindset, and process of Lean, Agile, and DevOps, “development-to-operations” upstream to include “business-to-development-to-operations” creating alignment with strategy while ensuring flexibility and agility. This includes a business driven “intentional architecture” and common vision that enable innovation, rapid change and emergent business design.

This workshop will mix presentations and simulation planning exercises to answer three key questions:
1. How does BizOps improve delivery and speed of business change?
2. How can you successfully integrate business and enterprise architecture into your DevOps and Agile environments?
3. How do architecture, analysis, design, and development activities change to take advantage of the best of both worlds?

Learning Objectives
- What is BizOps
- How to scale DevOps
- What are the core principles of Agile and Lean that must be scaled
- How architecture and Agile practices complement each other
- How to create an “intentional architecture” using DevOps
- How to extend DevOps to BizOps using business architecture and analysis
- How to fit architecture and analysis into a CD/CI and test-driven environment
- The new role of architects and business analysts

Course Outline
What are BizOps and DevOps?
- Agile and Lean Principles
  - Shorter cycles, continuous feedback, smaller batches, lower transaction cost, faster cycle time, test driven, tighter integration...
- Scaled Agile Approaches
  - SAFe
  - Scaled Agile

Architecture, Analysis and Design in the world of DevOps
- Opportunities
- Benefits
- Challenges

Business Architect and Analysis helps Agile Scale
- Extending SAFe roles
- Business architecture and the portfolio Kanban
- Value Streams influence backlogs and priorities
- Business Capabilities influence Features
- Intentional architecture and Enablers
- Portfolio concerns

Creating an ‘Intentional Architecture’
- Architectural enablers
- Shared vision
- Individual responsibility
- Clarity and competence

Audience
Audience Skill Addressed: All levels. Attendees will gain an understanding of how all the different techniques fit together. Attendees with exposure to Agile and DevOps will be able to quickly apply the learnings to their organizations.

Presenters
- Mike Rosen is Chief Scientist at Wilton Consulting Group providing advice to CIOs, IT Leaders, and Architects on creating the new Digital Business Platform, using architecture as a tool for digital transformation and improved decision making, and aligning architecture with Agile practices. He is also a Founding Member and VP of the Business Architecture Guild, a Certified Business Architect, certified enterprise architect, and Certified Scaled Agilist. Mr. Rosen has more than 35 years of technical leadership experience architecting, designing, and developing solutions, applications, and products. He was previously CTO at startup AZORA Technologies and chief architect, product architect, technical leader, and developer for commercial middleware products from IONA, BEA and Digital. Mr. Rosen is a well-known international speaker and author of 3 books and hundreds of articles.
Overview

This interactive full-day workshop is ideal for those considering a career in EA or anyone new to the profession. The course is also well suited to business change professionals who work with Architects and need to better understand the role and value of Architecture. We'll cover the basics of EA, providing foundational knowledge to take forward in your career. Delegates will explore the purpose of Architecture, the range of different Architecture roles, and the knowledge, skills, behaviours, and experience that are required to be got started in EA. We will provide an overview of the important Architecture Frameworks, as well as looking at key stakeholders and the different "customers" of Architecture. Together we’ll explore EA models and views, providing a simple framework for understanding a range of Architecture models. We’ll take a detailed look at some ‘killer artefacts’ (such as Business Capability Models) that are valuable to both a technical and non-technical stakeholder community, and at how to create business-relevant EA outputs. In short, understanding architecture deliverables that will help you to communicate well and have productive working relationships with your stakeholders. We will examine the qualities that make a ‘good’ Architect and the range of capabilities needed to make an Architecture team truly effective. The course will also look at the different mandates that can determine the scope of the Architecture practice in a business, as well as some of the typical pitfalls encountered. Lastly, we will explore how to get started in establishing an EA practice that fits your organisation, as well as providing guidance for continuous improvement.

Learning Objectives

At the end of the course attendees will have the foundational knowledge and confidence they need to get started in enterprise architecture and to ensure their organisations get more value from architecture teams.

- What you need to know... what is enterprise architecture?
- Demystify Enterprise Architecture / what does an architect do?
- Understand the drivers for EA / why does an organisation need Architecture?
- Understand what makes an Architect successful
- Understand the different types of EA role / what makes a good architect
- Understand where EA adds value... and its true potential

Course Outline

The Enterprise Architecture Fundamentals course is structured around a framework that we have used to drive and guide adoption of architecture in medium and large organisations. Content is supported by exercises and discussions throughout the day, with additional material supplied for independent review and ongoing reference.

What is Enterprise Architecture
- Where did it come from? How did we get here?
- What’s a good metaphor for enterprise architecture?
- Complexity and Drivers for EA / creating coherence
- What’s the essence of EA?

Positioning Enterprise Architecture
- What do you have to do to get started?
- What is the primary purpose of EA?
- What is EA’s strategic role?
- What are the elements of a successful EA effort?
- How does EA fit into our ‘business-IT’ landscape?
- Creating tomorrow’s enterprise vs running today’s enterprise
- Bridging the gap between strategy and execution
- Where can an EA practice be most valuable?

Effects of Enterprise Architecture
- What tangible effects do we expect EA to have?
- How well will we demonstrate and communicate achievement?
- Ways of delivering EA Value
- Indirect Business Value

People (part 1)
- What architect roles are required? Types of architects
- Who are the key stakeholders? Clients and consumers of architecture
- Networks of architecture teams
- The role of a Head of EA

Engagement
- What activities must architects get involved in?
- How do we contribute and how are activities initiated?
- Which are the current issues and hotspots to address?
- Developing your engagement model

Products
- What kinds of output do we need to produce?
- How will they be used? How to increase credibility?
- EA Frameworks and types of architecture content
- Models as a contextual lens; physical, logical, and conceptual models
- The role of architecture tools

Practice
- Choosing frameworks and methods
- Who needs to contribute to architecture production and application?
- How do we learn and improve?
- Other relevant business practices
- Factors affecting the success and failure of EA
- Product – Examples
- Killer Artefacts
- Architecture Principles
- Wardley Maps
- Business Capability Models
- Data, Applications and Technology Reference Models
- Architecture Roadmaps
- and many more!

People (part 2)
- Where to find architects?
- What knowledge, skills, behaviours, and experience are required?
- Developing competence / architecture as a craft skill
- How do we get people to work together effectively?

Plans
- Where to start doing EA? (and where not to start)
- What are the major steps and milestones?
- Understanding your Architecture Mandate
- Continual Improvement of your EA practice

Audience

This is an introductory course that assumes no prior knowledge of Enterprise Architecture. It is suitable for a wide audience, including newly-appointed EAs and other architects looking to understand EA, as well as for managers and change professionals looking to work effectively with architects. Typical Delegates include:

- Business Analysts or Technical Analysts looking to move into an Architecture role
- Enterprise architects new to the profession or wanting to reconnect with the fundamentals
- Solutions or Technical Architects looking to expand their mandate across the enterprise

- Senior managers who are responsible for architecture or for bridging the strategy-to-execution gap
- Strategy and business change professionals who work with architects or want to better incorporate architecture into their organisations

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
Overview
This course looks at the challenges faced by companies trying to deal with an exploding number of data sources, collecting data in multiple data stores (cloud and on-premises), multiple analytical systems and at the requirements to be able to define, govern, manage, unify and protect hybrid and hybrid-quality data products. It introduces a new approach to organising your data in a logical data lake and how IT data architects, business users and IT developers can work together to build ready-made trusted data products that can be published in a data marketplace available to others to consume and use to drive value. This new Data Lake approach to unifying and protecting data includes data cataloging and publishing data in an information catalog. It also involves refining raw data to produce trusted ‘data products’ as a service that can be published in a data marketplace (catalog) available for consumption across your company.

Learning Objectives

- How to define a strategy for producing trusted data as a service in a distributed environment of multiple data stores and data sources
- How to organise data in a centralised or distributed environment to overcome complexity and chaos
- Implementing the Data Lake architecture and operate a logical or centralised data lake within their organisation
- The critical importance of an information catalog in understanding what data is available as a service
- How data standardisation and business glossaries can help make sure data is understood
- An operating model for effective distributed information governance
- What technologies and implementation methodologies they need to get their data under control and produce ready-made trusted data products
- Collaborative curation of trusted, ready-made data products and publishing them in a data marketplace for people to shop for data
- Understanding methodologies to get master and reference data, big data, data warehouse data and unstructured data under control irrespective of whether it be on-premises or in the cloud.
- Fuelling rapid ‘last mile’ analytical development to reduce time to value

Course Outline

Establishing a Data Strategy for Rapid Unification of Trusted Data Assets
- The ever-increasing distributed data landscape
- The siloed approach to managing and governing data
- Key requirements for data management
- Dealing with new data sources – cloud, big data, sensor data, social media, smart products (the internet of things)
- Understanding scope of your data lake
- Building a business case for distributed data management
- Defining an enterprise data strategy
- A new collaborative approach to governing, managing and curating data
- Understanding the data lake and data refinery
- Data lake configurations – what are the options?
- Establishing a multi-purpose data lake and Information Supply Chain to produce data products for the enterprise
- DataOps – a component-based approach to curating trusted data products
- The importance of an Information catalog and its role as a data marketplace
- Key technology components in a data lake and their data supply chains – including data fabric software
- Understanding Cloud storage or Hadoop as a data staging area and why it is not enough
- Implementation run-time options – the need to curate data in multiple environments
- Integrating the data lake into your enterprise analytical architecture

Information Processing Methodologies
- Information production and information consumption
- A best practice step-by-step methodology structured data governance
- Why the methodology has to change for semi-structured and unstructured data
- Methodologies for structured Vs multi-structured data

Data Standardisation, the Business Glossary and the Information Catalog
- Semantic data standardisation using a shared business vocabulary within an information catalog
- The role of a common vocabulary in MDM, RDMS, IOA, DW and data virtualisation
- Why is a common vocabulary relevant in a data lake, data marketplace and a Logical Data Lake?
- Approaches to creating a common vocabulary
- Business glossary products storing common business terms
- Alteryx Connect Glossary, ASG, Collibra, Information Governance Catalog, Microsoft Azure Data Catalog Business Glossary, SAP Information Steward Metapedia, SAS Business Data Catalog in understanding what data is available as a service
- How data standardisation and business glossaries can help make sure data is understood
- An operating model for effective distributed information governance
- What technologies and implementation methodologies they need to get their data under control and produce ready-made trusted data products

Network and more
- Planning for a business strategy
- Organising data definitions in a business glossary
- Key roles and responsibilities – getting the operating model right to create and manage an SBV
- Formalising governance of business data assets (e.g. the dispute resolution process Business Improvement in SBV creation)
- Beyond structured data – from business glossary to Information catalogues
- What is an Information Catalog?
- Why are information catalogs becoming critical to information management?
- Information catalog technologies
- Information catalog capabilities

Organising and Operating the Data Lake
- Organising data in a centralised or logical data lake
- Creating zones to manage data
- New requirements for managing data in centralised and logical data lakes
- Creating collaborative data lake projects
- Hadoop or cloud storage as a staging area for enterprise data cleansing and integration
- Core processes in data lake operations
- Implementing a data ingestion pipeline
- Tools and techniques for data ingestion
- Implementing automated disparate data and data graph analysis using Information catalog software
- Using data and machine learning to automate and speed up data discovery and tagging
- A data lake – Alation, IBM Watson Knowledge Catalog, Informatica CLAIRE, Talend, DataWood, Waterline Data Smart Data Catalog
- Automated profiling, PII detection, tagging and cataloguing of data
- Automated data mapping and lineage discovery
- The data governance classification and policy definition processes
- Manual and automated data governance classification to enable governance
- Using tag-based policies to govern data
- The Data Refinery Process
- What is a data refinery?
- Key requirements for refining data
- The need for multiple execution engines to run in multiple environments
- Options for refining data
- ETL versus self-service data preparation
- Key approaches to scalable ETI data integration using Apache Spark
- Self-service data preparation tools for Spark and R (e.g. Alteryx Data Prep, Informatica Intelligent Data Lake, IBM Data Refinery, Pentaho, Tableau Prep, Tableau, Talend, Trifacta)
- Automated data profiling using analytics in data preparation tools
- Executing data refinery jobs in a logical data lake
- Integrating Apache Beam and Apache Flink
- Approaches to integrating ETL and self-service data preparation
- ODPI Egeria for metadata sharing
- Joined up analytical processing from ETL to analytical pipelines
- Publishing data and data integration jobs to the information catalog
- Mapping produced data products into your business vocabulary
- Data provisioning – publishing trusted, ready-made data products
- Enterprise Data Marketplace
- The Enterprise Data Marketplace – enabling information consumers to shop for data
- Provisioning trusted data using data visualization and a logical data warehouse and on-demand information services
- Consistent data management across cloud and on-premises systems

Unifying Big Data, Master Data and Data Warehouse Data to Drive Business Value
- A walk through of end-to-end things to do to create an Enterprise View and the challenge of bringing it together
- Connecting to Big Data sources, e.g. web logs, clickstream data, sensor data, unstructured and semi-structured content
- What are the requirements for enterprise data audit, access security and protection?
- What needs to be considered when dealing with the data audit and security challenge?
- Auto-mating data discovery and the information catalog – a huge help in identifying sensitive data
- What about privileged users?
- Using a data management platform and information catalog to govern data across multiple stores
- Securing and protecting data using tag-based policies in an information catalog
- What technologies and implementation methodologies they need to get data protect and govern it?
- Apache Knox, Cloudera Secured Datatable, IBM Informatica Secure@Source, Imperva, Micro Focus, Privitar
- Can these technologies help in GDPR?
- How do they integrate with Data Governance catalogues?
- How to get started in securing, auditing and protecting your data

In-House Training – This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.

Audience
- Chief Data Officers
- Data Architects
- Master Data Management Professionals
- Big Data Professionals
- Data Integration Developers
- Business Data Analysts doing self-service data integration
- Content Management Professionals
- Database Administrators
Overview

This course provides a solid foundation of the different information disciplines across the complete Information Management spectrum. By attending the course, delegates will get a firm Information Management grounding and illustrate their practical application with real examples of how they are applied. Additionally, this course highlights the key curriculum items for students wishing to take the DAMA Certified Data Management Professional (CDMP). At the end of day 3 of the course, students will optionally have the opportunity to take the CDMP examination. Full details of the CDMP examinations, levels and costs are available at https://cdmp.info/.

Learning Objectives

- Level set understanding & terminology: • Learn about the need for and the application of Information Management disciplines for different categories of challenges • Explore an Information Management framework and understand how it aligns with other architecture frameworks • Explore concepts such as lifecycle management, normalisation, dimensional modelling and data virtualisation and appreciate why they are important • Understand the difference between Master Data Management and Data Governance and how to effectively apply them
- Pragmatic Learning: • Learn the different MDM architectures, their suitability for different needs and how best to implement Master Data Management approaches; • Understand the different facets (dimensions) of Data Quality and explore a workable Data Quality framework; • Discover the major considerations for successful Data Governance and how it can be applied to a range of information management challenges; • Learn the best practices for managing Enterprise Information Needs through practical examples, learn how to apply techniques in information architecture planning

Course Outline

Introduction to Data Management, DMBoK & overview of the CDMP certification • What is Data Management, the drivers and issues if it goes wrong. • What is the DMBoK, its intended purpose and audience of the DMBoK • What are the disciplines of Data Management in the DMBoK • Overview of the DAMA CDMP professional certification, what are the levels and how can you progress from one level to the next.

Data Governance • What is Data Governance. • What is Data Governance at the heart of successful Information Management. • A typical Data Governance reference model. • Data Governance roles & responsibilities. • Organisational structures and types of Operating models to support Data Governance. • Principles for Data Governance • The role of the Data Governance Office (DGO) & its relationship with the PMO. • How to get started with Data Governance.

Data Quality Management • The different facets of Data Quality and why "Validity" is often confused with "Quality". • The different Dimensions of Data Quality. • The policies, procedures, metrics, technology and resources for ensuring Data Quality is measured and ultimately continually improved. • A Data Quality reference model & how to apply it. • Root cause analysis & why. • Capabilities & functionality of tools to support Data Quality management. • Data Quality measures – guidelines for their creation & monitoring.

Master & Reference Data Management • The differences between Reference & Master Data: • Identification and management of Master Data across the enterprise. • 4 generic Master Data Management architectures & their suitability in different cases. • The different genres of Master Data Management solutions & pitfalls to avoid • Different approaches for Master Data Management implementation. • The essential relationship between Master Data Management, Data Quality, and Data Governance. • The under looked but critical aspect of Reference Data Management

Data Warehousing & BI Management • What is a Data Warehouse & why are they used. • Provision of Business Intelligence (BI) to the enterprise and the way data consumed by BI solutions and the resulting reports are managed. Particularly important if the data is replicated into a Data Warehouse. • The major DW architectures (Inmon & Kimball) • Introduction to Dimensional Data Modelling • Overview of slowly changing dimensions and why they are required.

Data Modelling • What are Data Models & why do we need them. • What are the different types of Data models, their use and how they interrelate. • The development, and exploitation of data models, ranging from Enterprise, through Conceptual to Logical, Physical and Dimensional. • Data modelling & Big Data - why data modelling is NOT just about Relational Database design. • The use of data models in Data Governance, and Data Quality Management.

Metadata Management • What is (and isn’t) Metadata. • The provision of metadata repositories and the means of providing business user access and glossaries from these. • Different types of Metadata & their uses. • Where is metadata found – the different locations of metadata. • What metadata do we need to manage • Metadata & Business Glossaries. What’s the connection? • Data Integration & Interoperability.

Data Risk Management, Security, Privacy & Regulatory compliance • Identification of threats and the adoption of defences to prevent unauthorized access, use or loss of data and particularly abuse of personal data. • Exploration of threat categories, defence mechanisms & approaches, and implications of security & privacy breaches.

Data Operations Management • Core roles & considerations for data operations • Obstacles to performance • Good Data Operations practices • Records & Content Management • Why document & records management is important • The records management lifecycle

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Presenter

Chris Bradley has spent 37 years in the forefront of the Information Management field, working for International organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehousing and Business Intelligence. Chris is Director of the E&G standards committee “DMBoK”, an author of several books including “Data Modelling for The Business” and “DMBoard 2.0”, a member of the Meta Data Professionals Organisation (MPO) a Fellow of BCS and DAMA CDMP, recipient of the DAMA Lifetime Achievement Award for Data Management Excellence, and author of significant parts of professional certifications. Chris is an acknowledged thought leader in Data Modelling and Data Governance, author of several papers and books including “Data Modelling for the Business”.

“In great breath and depth! Great breath of knowledge and experience. Will recommend to my colleagues. The course has exceeded my expectations.”

Nadia Batool, Data Governance Consultant, Royal London Group
Overview

With data being at the forefront of ALL business, the need for organisations to produce a wide-ranging Data Strategy is greater than ever, with both the increase in data regulations and the focus on data driven business outcomes. Yet, creating an enterprise wide data strategy and the governance to support it can be a formidable task. Often, it is difficult to know where to begin, and how best to prioritise efforts due to the large number of stakeholders and many competing initiatives. Data is at the heart of all organisations, almost like blood flowing through its arteries and veins. However, all too often Information is not professionally managed with a sound approach. Nonetheless, if it’s not managed, it can be catastrophic, from legal and other regulatory sanctions ultimately to business collapse. Professor Joe Peppard (European School of Management, Cranfield) summed it up when he said: “The very existence of an organisation can be threatened by poor data”. This 2-day course will provide concrete practical approaches to get you started on your Data Strategy, the typical contents of a Data Strategy, and the ways in which your supporting Data Governance framework can be organised.

Learning Objectives

Level set understanding & terminology:

- Understand the key components that comprise a Data Strategy.
- Learn how to create a case for obtaining business buy-in for a data strategy.
- Understand the different types of Data Strategy and how to set the scope for it.
- Learn how to create metrics for tracking the progress of your data strategy.
- Learn about the need for and the application of Data Asset management and Governance for different categories of challenges.
- Understand why a Business focused Data Governance framework must be aligned with your emerging data strategy.
- Appreciate the critical role that Data Governance plays in the core Information disciplines including Master Data Management and Data Quality management, and why this should be recognised in you Data Strategy.
- Pragmatic Learning: Discover the different types of data strategies and which is most appropriate and practical for you.
- Learn the different motivations for Data Asset management and Governance and how best to implement DG approaches.
- Develop a set of usable techniques that can be applied to a range of information management challenges.
- Learn the best practices for managing Enterprise Information needs.
- Learn how to create an actionable roadmap to implement your data strategy.
- Understand how to identify the additional activities that are necessary to support the data strategy.

Course Outline

Components of a Data Strategy
- Where do I Start & What is the Scope of the Data Strategy?
- Building Blocks of a Data Strategy & Architecture

Establishing Goals & Gaining Buy-In
- Motivation and Drivers
- Internal Factors
- External factors

Data Management Maturity
- Data Management Maturity Assessment of the Disciplines of Data Management
- Maturity for Organisational Enablers of Information Management
- People
- Executive Sponsorship/Policy
- Technology
- Compliance
- Measurement
- Data Management Processes / Practice

Data Governance: Managing people, Organisation & Process
- Steering and Governance
- The organisation structure for data governance
- Charters or terms of reference for steering group(s) and the recommended constitution of each group
- Sponsorship
- Roles & Responsibilities & People Capabilities
- The essential Data Governance roles & activities.
- Capabilities for core Data Management roles may be covered in a strategy.
- Data Management Process
- A data strategy should tie in the Change Management Process, and
- Solutions Development Process with data touch points during the Systems Delivery Life Cycle (SDL)

Prioritising Business Critical Data and Capabilities
- Capabilities & Critical Data
- Defining & managing the business-critical data and the people capabilities required for their management.
- Architecture
- Building the appropriate technical architecture for the foundation of the business disruptions and the people capabilities.
- Building the appropriate technical architecture for the foundation of the business disruptions and the people capabilities.

Defining an Actionable Roadmap
- Success Metrics
- From the Principles and Minimum standards, quantifiable success metrics can be developed. Examples will be used to illustrate this.
- Priorities & Quick Wins
- Data governance, and how best to support the data strategy.
- Business initiatives and priorities that are used in the formulation of the roadmap and transition steps. In particular, the transition steps will be aligned with business initiatives.
- Roadmap, Dependencies and Transition Steps
- Roadmap of the recommended activities to move the data initiative forward.
- The overall roadmap must make it clear that there will be dependencies within data governance and how best to undertake XYZ Master Data Management, a minimum viable Data Governance process and responsibilities must be established for area XYZ.
- The overall “Roadmap” is made up of Transition steps which can be bundled into Transition projects. The key consideration here is that the most successful transitions are where they align well with business priorities and are not simply “data projects”.
- Culture, Communication, Sustainability & Education
- Development of a communication plan, defining the data strategy. The communication plan needs to have at least: Audience, Message, Method, Principle.
- Development of an education plan to raise Data Management awareness in the organisation and ensure the sustainability of the strategy.
- Funding Model
- Recommendations on funding approach for Data initiatives.

Additional Activities to Support the Strategy
- Identify Candidates for Roles
- Determine Data Owners & Stewards
- Assess Current Roles and Skills, Perform Gap Analysis
- Identify Training Required to Address Gaps
- Brief and Mentor Data Owners
- Define Data Subject Areas & Develop Conceptual Data Model
- Determine & Prioritise Business Area for Data Governance Rollout

Audience

- Data Strategists
- Data Governance Managers
- Data Quality Managers
- Data Analysts
- Data Architects
- MDM Managers
- Information Architects
- Business Intelligence & Data Warehouse Developers & Architects
- Enterprise Architects
- Solution Architects
- Application Architects
- Business Analysts
- IT Consultants
- Information Quality Practitioners

Presenter
Christopher Bradley has spent 39 years in the forefront of the Information Management field, working for International organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehouse and Business Intelligence. Chris is an Information Strategist and a recognised thought leader. He advises clients including, Altimna Bank, American Express, ANZ, Global Wealth Management, EY, British Gas, Bank of England, BP, Colgen, Cigna Insurance, EDP, Emirates, NBD, Enterprise Oil, ExxonMobil, GSK, HSBC, NAB, National Grid, Riyad Bank, SABB, SAMA, Saudi NC, Saudi Aramco, Shell, Statoil, and TOTAL. He is VP of Professional Development for DAMA-International, an inaugural Fellow of DAMA, COMPART of DAMA USA. He is an author of the DMBoK 2 and author and examiner for professional certification. In 2014 Chris received the lifetime achievement award from DAMA International for exceptional services to furthering Data Management education & to the International Data Management community. Chris is Director of the IUP Standards committee “DMBoard”, sits on several International Data Standards committees, teaches at several Master’s Degree University Classes Internationally. He authored “Data Modelling for the Business”, a primary author of DMBoK 2.0, a member of the Meta Data Professionals Organisation (MPO) and a holder at “Fellow” level of CDPMP and examiner for several professional certifications.

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
Data Modelling Essentials

Overview
This 2-day course addresses the core data management topic of data modelling. Often misunderstood and relegated to just the technical aspect of "database design", data modelling is one of the most important disciplines of data management. The course introduces delegates to data modelling, its purpose, the different types of models, how to construct and read a data model, and the wider use of data models beyond the traditional area of database design. It contains a wide-ranging clarification of data modelling concepts and terminology, together with techniques for producing usable data models.

Learning Objectives
This course explains the essential data modelling building blocks. It will help students to understand the differences between relational and dimensional models, and between the different levels of Conceptual, Logical and Physical models. On completion they will be able to:
- Describe the purpose of, Conceptual, Logical, and Physical data models
- Create a Conceptual and a Logical data model
- Read and interpret a data model
- Understand different approaches for fact finding and how to apply normalisation techniques
- Understand how to validate a data model.

At the end of the course, delegates would have gained the following:

Level Set Understanding & Terminology:
- Learn about the need for and application of Data Models

Course Outline
Data Modelling Basics
- What is Data Modelling and why does it matter
- What is the relationship between a data model and other types of models in the Enterprise Architecture
- What is a Conceptual Data model, why it’s important and the pivotal role it plays in all architecture disciplines
- The major differences between Enterprise, Conceptual, Logical, Physical and Dimensional data models
- Data vs MetaData: what’s the difference and why does it matter

Data Model Components
- Data Modelling Basics; Entities, Attributes, Relationships
- How to identify Entities and Subtypes
- What are the differences between exclusive and non-exclusive subtypes?
- Basic standards that you can use right away
- Relationships: Cardinality & Optionality, Identifying, Non-identifying, recursive, and many-to-many
- How does cardinality and referential integrity lead to better data quality?
- Rules for handling Super types, subtypes, many to many and recursive relationships
- Keys: Primary, Natural, Surrogate, Alternate, Inverted, Foreign
- What are the alleged and actual benefits of surrogate keys?
- Attribute properties & attribute domain

Creating Data Models
- How to get started with data models
- What core information is needed to create a data model, how this can be easily communicated to business people, and what visual constructs to use to get their attention
- Templates and guidelines for a step-by-step approach to implementing a high-level data model in your organization
- How to capture requirements for data models

Audience
Practitioners who will need to read, consume or create data models to gain a better understanding of data during Information Management initiatives including:
- Business Intelligence & Data Warehouse Developers & Architects
- Data Modellers
- Data Architects
- Data Analysts
- Enterprise Architects
- Solution Architects
- Application Architects
- Information Architects
- Business Analysts
- Developers
- Database Administrators
- Project / Programme Managers
- IT Consultants
- Data Governance Managers
- Data Quality Managers
- Information Quality Practitioners

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Presenter
Chris Bradley has spent 37 years in the forefront of the Information Management field, working for International organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehouse and Business Intelligence. He advises clients including National Grid, EDF BP, Enterprise Oil, Saudi Aramco, Shell, StatOil, TOTAL, Qatar Gas, Alba Leasing, Alinma Bank, American Express, ANZ, Bank of England, Celgene, Cigna Insurance, Emirates NBD, GSK, HSBC, NAB, SABB and Riyad Bank. Chris is Director of the E&P standards committee "DMBoard", an author of several books including "Data Modelling for The Business" and "DMBook 2.0", a member of the Meta Data Professionals Organisation (MPO) a Fellow of BCS and DAMA CDMP, recipient of the DAMA Lifetime Achievement Award for Data Management Excellence, and author of significant parts of professional certifications. Chris is an acknowledged thought leader in Data Modelling and Data Governance, author of several papers and books including "Data Modelling for the Business".
Overview
This course explores the more advanced techniques for Data Modelling. In addition, techniques will be taught on how (and when) to create Data Models for non-relational solutions including Big Data together and the uses for data models beyond Relational DBMS development.

Learning Objectives
Practical Application:
• Build conceptual and logical data models, and know about compromises for physical design
• How to discover requirements for robust data models
• Understand where abstraction is valuable (and where it is risky)
• Where industry data models can provide a kick start
• How (and where) to apply standard solutions to well-known data modelling business scenarios.

Level Set Understanding & Terminology:
• Learn about the need for and application of Data Models in Big Data and NoSQL environments
• See the areas where Data modelling adds value to Data Management activities beyond Relational Database design
• Understand the critical role of Data models in other Data Management disciplines particularly Master Data Management and Data Governance

Pragmatic Learning:
• Learn the best practices for developing Data models for Big Data and NoSQL environment
• Understand how to create data models that can be easily read by humans
• Recognise the difference between Enterprise, Conceptual, Logical, Physical and Dimensional Data models
• Through practical examples, learn how to apply different Data modelling techniques

Course Outline
Data Modelling Recap
• Data modelling basics
• major constructs
• identifying entities
• Data model types, and the linkage between them

Levels of Models
• Enterprise, Conceptual, Logical & Physical
• What is the purpose of each, do we need all three in a Big Data world
• Where does Dimensional modelling fit in?

Data Modelling – Back to the Future?
• Data Modelling didn’t start with relational! This may be a surprise to many people, but the first uses of data models were well before Relational data bases became the norm.
• The techniques are applicable to many of the modern non-relational formats we see today.
• Modelling in the pre-relational days. We didn’t have RDBMS’s. We had Flat files, Sequential, VSAM, Hierarchical DBMS’s, Network DBMS’s, Inverted Architecture DBMS’s.
• The techniques that were developed for these are directly applicable to the NoSQL and Big Data world of today.

Data Modelling for Big Data & NoSQL
• What has to change when we are developing data models for a Hadoop or other Big Data environment?
• Do modelling tools support Big Data technologies, what are the restrictions and considerations?
• What data modelling techniques are applicable when targeting a Big Data platform?
• Does normalisation still have a place in the Big Data world?
• Where’s our metadata in the model now?
• In the age of big data, popular data modelling tools (eg ER/Studio, ERWin, PowerDesigner) continue to help us analyze and understand our data architectures by applying hybrid data modelling concepts. Instead of creating pure a relational data model, we now can embed NoSQL submodels within a relational data model. In general, data size and performance bottlenecks are the factors that help us decide which data goes to the NoSQL system.
• Key Value Pairs: A common misconception is that using data structures like JavaScript Object Notation (JSON) prevents us from needing a data model. THIS IS WRONG. We’ll show several examples & conclude that a set of JSON files can be just as complicated as a 100 table 3rd Normal Form data model.
• NoSQL & Hadoop: How the 4 types of NoSQL databases still need data models, and how the ACID vs BASE paradigm affects this.

Modelling for Hierarchic Systems & XML
• What must change when developing data models for XML & Hierarchic systems?

Services Oriented Architecture (SOA)
• Why data models are essential for SOA

Massively Denormalised Files
• Is modelling needed?
• How do we create data models for Data lakes?

Dimensional Data Models
• How do we create a dimensional model?
• Converting an ER model to Dimensional.
• Slowly changing dimensions, what types when are they applicable.
• Beyond the basics with conformed dimensions, bridges, junk dimensions & fact less facts.

Application Packages & Data Models
• Do we need to develop data models when implementing a COTS package?
• Uses and benefits.

Using Data Models for Data Integration & Lineage
• How to exploit data models for design of data integration approaches and in data lineage.

Top Down Requirements Capture
• When it is appropriate
• What are the limitations.

Bottom Up Requirements Synthesis
• When this works, where it is appropriate.

Interaction between process and data models.

Approaches for capturing Process AND Data Requirements.

Checking the Data vs the Metadata: Why Does it Matter?

Use of Standard Data Model Constructs and Pattern Models
• Understanding the Bill of materials (BOM) construct.
• The critical importance of understanding processes to get your data models right (and vice versa).

Lineage
• How to exploit data models for design of data integration approaches and in data lineage.

Different Data Modelling Notations & a Comparison Between Them

Normalisation
• Progressing beyond 3NF, 4NF, 5NF

Audience
• Business Intelligence & Data Warehouse Developers & Architects
• Data Modellers
• Developers
• Data Architects
• Data Analyst
• Enterprise Architects
• Solution Architects
• Application Architects
• Information Architects
• Business Analysts
• Database Administrators
• Project / Programme Managers
• IT Consultants
• Data Governance Managers
• Data Quality Managers
• Information Quality Practitioners

Practical Application:
• Rebuilding an existing data model (eg ER/Studio, ERWin, PowerDesigner) that has developed over time
• Where’s our metadata in the model now?
• In the age of big data, popular data modelling tools (eg ER/Studio, ERWin, PowerDesigner) continue to help

Presenter
Chris Bradley has spent 37 years in the forefront of the Information Management field, working for international organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehouse and Business Intelligence. He advises clients including National Grid, EDP, BP, Enterprise Oil, Saudi Aramco, Shell, StatOil, TOTAT, Qatar Gas, Alba Leasing, Alinma Bank, American Express, ANZ, Bank of England, Exeqme, Cigna Insurance, Emirates NBD, GSK, HSBC, NAB, SABB and Riyad Bank. Chris is Director of the E&P standards committee "DMBoard", an author of several books including “Data Modelling for The Business" and “DMBoK 2.0”, a member of the Meta Data Professionals Organisation (MPO) a Fellow of BCS and DAMA CDMP, recipient of the DAMA Lifetime Achievement Award for Data Management Excellence, and author of significant parts of professional certifications. Chris is an acknowledged thought leader in Data Modelling and Data Governance, author of several papers and books including "Data Modelling for the Business".
Practical Metadata Management

Overview

A 1-day class covering the considerations, benefits and approaches for the successful capture, storage, management and exploitation of metadata. This course will show the different types, sources and uses of Metadata and illustrate why the old definition of “data about data” masks the truth.

Learning Objectives

- What is MetaData & why the old definition “Data about data” hides the full story
- Distinguish the different types of Metadata (e.g. Business, Data, Technical, Governance and Process)
- Appreciate the business benefit of Metadata and discusses various uses and methods for exploiting metadata
- Discover how to capture, distribute and exploit Metadata
- Gain an awareness of the different sources of metadata and the issues for integrating them
- Understand the key industry standards for Metadata and understand how (and why) to exchange metadata between different components of your architecture
- Discover the difference between a Business Glossary, Data Dictionary and Metadata repository and the other “library” uses of Metadata
- Big Data technologies and Metadata: the uncomfortable truth about what’s missing.

Course Outline

Metadata Overview
- What is Metadata & why it’s collection and management are vital
- The Business Value of Metadata
- Sources of metadata and methods of collecting and storing it
- The different types of metadata including:
  - Technical Metadata
  - Business metadata
  - Process
  - Governance & ownership metadata
  - Operational metadata

Benefits & uses of metadata
- Metadata Strategy
- Business Prioritization
- Stakeholder Analysis
- Technical Infrastructure & Analysis
- Metamodelling
- How to provide metadata repositories and the means of providing business user access and glossaries from these including:
  - Business Glossary
  - Data Dictionary
  - Process & Data Models
  - Data Lineage and other “library” uses of Metadata
- Metadata standards and tools
- The role and exploitation of data models, and their key place in a metadata strategy

The role of Metadata in Data Governance
- Overview of a framework for Data Governance
- Explain how Metadata and a CDM provides the central ‘anchor’ in the framework, relating it to important principles and standards
- Examine the different ‘flavours’ and types of Metadata & its role in Data Governance
- Real-world examples of the use of Metadata in Data Governance

Metadata Implementation
- Metadata Architecture
- Metadata Implementation & Rollout
- A maturity assessment to consider the way in which metadata is utilized in the enterprise and its integration in the System Development Life Cycle (SDLC).
- A framework for Metadata Governance

Big Data & Metadata
- Pitfalls of the metadata gap in big data technologies
- How to tag data for retrieval

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.

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Only one discount can be applied at any one time

Presenter

Chris Bradley has spent 37 years in the forefront of the Information Management field, working for International organisations in Information Management Strategy, Data Governance, Data Quality, Information Assurance, Master Data Management, Metadata Management, Data Warehouse and Business Intelligence. He advises clients including National Grid, EDF, BP, Enterprise Oil, Saudi Aramco, Shell, Statoil, TOTAL, Qatar Gas, Alba Leasing, Alinma Bank, American Express, ANZ, Bank of England, Celgene, Cigna Insurance, Emirates NBD, GSK, HSBC, NAB, SABB and Riyad Bank. Chris is Director of the E&P standards Professionals Organisation (MPO) a Fellow of BCS and DAMA CDMF, recipient of the DAMA Lifetime Achievement Award for Data Management Excellence, and author of significant parts of professional certifications. Chris is an acknowledged thought leader in Data Modelling and Data Governance, author of several papers and books including “Data Modelling for the Business”.

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
Overview

A one day practical class covering the different MDM architectures, genres, applications and activities involved in running a successful Master Data Management initiative. This course explores how to get started with Reference & Master Data Management and outlines a successful framework for achieving MDM and RDM success. Additionally, this course addresses the key points covered in the Master and Reference Data Management specialisation exam for the DAMA-I Certified Data Management Professional qualification (CDMP).

Learning Objectives

This course provides you with the knowledge, methods and techniques required to analyse, mature and implement Master & Reference Data management solutions within your organisation. At the end of the course, delegates would have gained the following:

- Level Set Understanding & Terminology:
  - Understand the differences between Reference & Master Data.
  - Learn about the need for and the application of Master Management approaches for different categories of challenges.
  - Understand the different business drivers for Master & Reference Data Management.
  - Understand the linkage between Master Data Management with Data Modelling, Data Quality and Data Governance.

- Pragmatic Learning:
  - Learn how to identify what should be Mastered in across the enterprise.
  - Discover 4 generic Master Data Management architectures & their suitability in different cases.
  - Understand how to undertake a Master Data Management maturity assessment to consider business procedures for Master Data Management and the provision and appropriateness of Master Data Management solutions per major data subject area.
  - Discover approaches to incrementally implement Master Data Management to align with business priorities.

Course Outline

- **What is Master Data Management, and what are the differences between Master and Reference Data & why it matters.**
- **The essential relationship between Master Data Management, Data Quality and Data Governance**
- **What are the different types of MDM Architectures, from a full central hub, through hybrid to virtualised with many flavours and variants along the way.**
- **The applicability of different MDM architectural styles to differing business problems and why identifying the correct architecture for your type and usage of Master Data is crucial.**
- **A Reference Architecture Model for Master and Reference Data Management and exploration of the typical components and functions in the Reference Architecture.**
- **How to identify & select the right tooling for your environment and Master Data business needs.**
- **Genres of Master Data Management solutions and the common pitfalls if you select the wrong type.**
- **Architecture considerations: Single domain and Multi domain MDM solutions, the advantages & disadvantages of each and how to determine what’s most appropriate for you.**
- **Different approaches for Master Data Management implementation and why you must be careful in the approach selected. This includes Operational vs Analytical MDM.**
- **The issues and implications associated with the different approaches and why getting these right impacts future MDM success.**
- **How to build the case for a Master Data initiative showing a proven approach for identifying the Data Subject Areas aligned to Business initiatives to start on your MDM program.**
- **How to create an incremental MDM implementation plan that won’t break the bank.**
- **The under looked but critical aspect of Reference Data Management.**

Audience

Practitioners who seek to gain an understanding of the different considerations in Master and Reference data management. These include:

- Business Intelligence & Data Warehouse developers & architects
- Data Modellers
- Developers
- Data & Enterprise Architects
- Data Analysts
- Solution Architects
- Application Architects
- Information Architects
- Business Analysts
- Database Administrators
- Project / Programme Managers
- IT Consultants
- Data Governance Managers
- Data Quality Managers
- Information Quality Practitioners

Presenter

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Chris is Director of the E&P standards committee “DMBoard”, an author of several books including “Data Modelling for The Business” and “DMBoard 2.0”, a member of the Meta Data Professionals Organisation (MPO) a Fellow of BCS and DAMA CDMP, recipient of the DMAA Lifetime Achievement Award for Data Management Excellence, and author of significant parts of professional certifications.

Chris is an acknowledged thought leader in Data Modelling and Data Governance, author of several papers and books including “Data Modelling for the Business.”
Overview

Data Governance is rapidly becoming a 'must have' for any organisation wanting to manage its data, improve its quality, and control its security, access and uses. An average organisation’s data is doubling every 15 months. Propelled by Big Data, Cloud Computing and other innovations, this rapid increase in volumes is compounded by the increasing speed and complexity with which data is created and stored.

Organisations are also under increasing customer, regulatory and legal pressures to get data right. Data Governance is seen as a keystone in any solution to address these challenges. Many organisations have already recognised the potential value of Data Governance and have started governance initiatives. Though some have succeeded, many are faltering or have failed. Attending this 2-day seminar & workshop will ensure that you set off on the right path to successful and sustainable Data Governance. Key Topics include:

- What is Data Governance?
- Why is it increasingly a ‘must have’ for organisations
- Building the internal case for Data Governance
- How and where do you start to introduce

Note that course will help you whether you are new to Data Governance or already working as part of an existing Data Governance team or programme.

Learning Objectives

- Understand what Data Governance is, and what it isn’t
- Assess the readiness of your organisation for Data Governance
- Be able to align a Data Governance proposal and initiative with your key organisational and/or departmental drivers
- Make the internal business case for investment in Data Governance
- Be able to identify and apply the six necessary components of a Data Governance framework
- Create a realistic plan of action for Data Governance
- Apply these practices to a fictional, but highly realistic organisation via a hands on case study
- Learn from best practices in other organisations who are already implementing Data Governance

Course Outline

Scene Setting & Introductions
- Scope & objectives of the course
- Course agenda & participant expectations

Data Governance Context & Drivers
- The impact of good and bad data
- The Chamber of Data Horrors
- The overall impact of poor data
- Data and the digital business
- Drivers for change
- Why poor quality data persists

Data Governance – An Industry Assessment
- The need for Data Governance
- The DAMA DMBOK wheel: the centrality of Data Governance
- Data Governance: definitions and focus
- Key principles of Data Governance
- The Data Governance landscape
- Why Data Governance can fail
- Key components of success: breaking down the barriers
- Assessing Data Governance maturity & readiness
- Introduction to the case study
- Case study exercise 1: Context and maturity assessment

The Components of Successful Data Governance
- Tackling Data Governance barriers
- The Data Governance Framework overview
- Vision & Strategy
- Organisation & People
- Processes & Workflows
- Data Management & Measures
- Culture & Communications
- Tools & Technology

Building the Data Governance Strategy & Framework
- Vision & Strategy
  - Creating a clear Data Governance vision
  - Understanding business drivers
  - Identifying key data challenges
  - Producing a Motivation Model
- Building a business case & strategy for Data Governance
- Case study exercise 2: Creating a Motivation Model
- Organisation & People
  - Organising for Data Governance
- Data Ownership & Stewardship
- Data Governance: getting organised
- The five basic models of Data Governance
- The pros & cons of each model
- Deciding on the right model for any specific organisation
- Processes & Workflows
  - Designing Data Governance processes & workflows
- Data Governance processes & workflows explained
- Data Management & Measures
  - How to identify key data
  - The importance of measurement in Data Governance
  - Defining ‘fit for purpose’ data
- Establishing baselines and improvement targets
- Culture & Communications
  - The importance of selling Data Governance
  - Culture change & Data Governance
- Key lessons for effective culture change
- Communications strategies and plans
- Tools & Technology
  - Data Governance toolset

The role of IT

Applying the Data Governance Framework
- Using the Data Governance Framework: maturity assessment & creating the proposal
- Case study exercise 3: Maturity assessment
- Setting Data Governance goals and objectives
- The benefits of the Data Governance Framework
- Potential Data Governance framework deliverables & activities

Creating the Data Governance Roadmap & Data Improvement Plans
- Bringing it all together – the Data Governance Roadmap
- Hints & tips for developing Roadmaps
- Data Improvement Plans
- Issue logging
- Setting Data Improvement Plan priorities
- Case study exercise 4: Issue Logging, Data Improvement Plans, Roadmap

Data Governance in Practice
- A summary of real life Data Governance success stories:
  - Telecommunications
  - Social Services
  - Utilities
  - Professional Certification Organisations
  - Manufacturing

Summary & Conclusions
- Recap of course objectives
- Review of participant objectives
- Call to action

Audience

Individuals and teams who are playing, or would like to play, an active role in the implementation of a Data Governance initiative. It will also be of interest to anyone working in a relevant business role or role who wants to know more about Data Governance concepts and practices.

Typical roles who will benefit from this tutorial / workshop include:

- Heads of Data Governance & their teams
- Data Owners
- Chief Data Officers & their teams
- Information Strategists & Architects
- Data Stewards
- Business Analysts
- Data Quality Specialists
- Master Data Management Practitioners

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Presenter

Nigel Turner is Principal Information Management Consultant for EMEA at Global Data Strategy Ltd. and Vice-Chair of the Data Management Association of the UK. Nigel has worked in Information Management for over 25 years, both as an in-house implementer of Information Management solutions at British Telecommunications plc and subsequently as an external consultant to more than 150 clients, including the Environment Agency, British Gas, HSBC, Intel US and others.
Ten Steps to Data Quality

Overview

Simply put, information quality is providing the correct set of accurate information, at the correct time and place, to the correct people. However, ensuring quality information is far from simple. Whether you are just starting a project or are already in production, it is not unusual for the data that quality issues prevent organizations from realizing the full benefit of their investments in business processes and systems. The Ten Steps to Data Quality course teaches a practical approach to creating, improving, and managing the quality of information critical to providing products and services, satisfying customers, and achieving goals for any type of organization. If you are working on real data quality-related issues that need real results, this is the course for you. What is learned applies to all kinds of data and every type of organization – for-profit businesses of all sizes, education, government, healthcare, and nonprofit – because all depend on trusted information to succeed. Both concepts and practical application are included. Concepts provide a foundation for understanding data quality. Concepts are put into action through the Ten Steps™ process. Both are needed to apply the methodology appropriately to the many data quality related situations that attendees will face within their organizations. In addition to discussion and exercises (individual and as a group), attendees will practice what is learned by applying the steps and techniques to a course project of their choice. Come with your particular needs in mind, be ready to participate, practice applying what is learned to your situation and leave with realistic methods for managing data quality.

Learning Objectives

- Turn data quality challenges into actionable projects with clear objectives
- Connect data quality issues with business priorities
- Use business impact techniques to show the value and impact of data quality
- Use data quality dimensions to assess the data that supports business needs and project objectives
- Use root cause analysis techniques to address the true causes of data quality issues
- Select the appropriate steps, activities, and techniques from the Ten Steps™ process to address business needs
- Fit data management topics such as data governance, data modeling, metadata, business rules, master data, reference data, and data standards into the process for ensuring high quality data
- Apply concepts such as the Framework for Information Quality and the information life cycle to data quality management
- Apply templates and examples to address their own data quality concerns

Course Outline

The Data and Information Quality Challenge
- Information and data quality defined
- Why we care about data quality
- Data quality in action through programs, projects, and operational processes
- The Ten Steps™ methodology – key concepts plus the Ten Steps™ process

Key Concepts – A Necessary Foundation for Understanding Information Quality
- Framework for Information Quality (FITQ) – Components that impact information quality:
  - Business Needs - Goals, Strategies, Issues, Opportunities
  - Information Life Cycle (IPLC): Plan, Obtain, Store and Share, Maintain, Apply, Dispose
  - Key Components that affect information quality (Data, Processes, People/Oragnizations, Technology)
  - Interaction between the Information Life Cycle and the Key Components
  - Location (Where) and Time (When and How Long)
  - Broad-Impact Components (RIRIC – Requirements and Constraints, Responsibility, Improvement and Prevention, Structure and Meaning, Communication, Change)
  - The relationship between Data Governance, Stewardship, and Data Quality

Step-by-step: The Ten Steps™ Process
- Each of the Ten Steps is covered in the seminar with instructions, techniques, examples, templates and best practices.
- Data quality tools will also be discussed in the applicable steps.
- Exercises and working on a course project with small teams give attendees the opportunity to practice what is learned.

Step 1 Determine Business Need and Approach
- Define and agree on the issue, the opportunity, or the goal to guide all work done throughout the project.
- Refer to the business need throughout the other steps in order to keep the goal(s) at the forefront of all activities

Step 2 Analyze Information Environment
- Gather, compile, and analyze information about the current situation and the information environment.
- Document and verify the information life cycle, which provides a basis for future steps, ensures that relevant data are being assessed, and helps discover root causes
- Design the data capture and assessment plan

Step 3 Assess Data Quality
- Evaluate data quality for the data quality dimensions applicable to the issue
- Results of assessments provide a basis for future steps, such as identifying root causes and determining needed improvements and data corrections
- Overview of all the dimensions of data quality and how to choose which dimensions will best support business needs

Step 4 Assess Business Impact
- Determine the impact of poor-quality data on the business using a variety of qualitative and quantitative techniques.
- This step provides input to establish the business case for improvement, to gain support for information quality, and to determine appropriate investments in your information resource

Step 5 Identify Root Causes
- Identify and prioritize the true causes of the data quality problems
- Develop specific recommendations for addressing the problems.

Step 6 Develop Improvement Plans
- Finalize specific recommendations for action.
- Develop improvement plans based on the recommendations.
- Establish ownership for implementation.

Step 7 Prevent Future Data Errors
- Implement solutions that address the root causes of the data quality problems.
- Implement steps to make appropriate data corrections.

Step 9 Implement Controls
- Monitor and verify the improvements that were implemented.
- Maintain improved results by standardizing, documenting, and monitoring appropriate improvements

Step 10 Communicate Actions and Results
- Document and communicate the outcome of quality tests, improvements made, and results of those improvements.
- Communication is so important that it is part of every step

Audience

- Data Analysts
- Data Quality Analysts
- Business Analysts
- Data Designers/Modellers

Presenter

Danette McGilvray is an experienced trainer, consultant and author of “Executing Data Quality Projects: Ten Steps to Quality Data and Trusted Information™”. An internationally respected expert, her Ten Steps™ approach to information quality has been embraced as a proven method for creating, improving, and managing the quality of all types of data for any kind of organization. Her book is used as a textbook in university graduate programs.

"Danette McGilvray was brilliant. I would definitely recommend this course to colleagues."  Graham Wall, Data Management Analyst, PageGroup

"Danette McGilvray is very inspirational."  Radha Ghahem, Data Quality Analyst, NHS PS, UK

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TEN STEPS™ APPROACH TO INFORMATION QUALITY

- Step 1 Determine Business Need and Approach
- Step 2 Analyze Information Environment
- Step 3 Assess Data Quality
- Step 4 Assess Business Impact
- Step 5 Identify Root Causes
- Step 6 Develop Improvement Plans
- Step 7 Prevent Future Data Errors
- Step 8 Correct Current Data Errors
- Step 9 Implement Controls
- Step 10 Communicate Actions and Results

Group Booking & Multiple Seminar Discounts Available
Overview

This new 3-day interactive workshop combines the core content from two popular data modelling courses by Alec Sharp – Business Oriented Data Modelling and Advanced Data Modelling. This workshop, suitable for both new and experienced modellers, will explore unique techniques for rapidly developing high-quality models while maintaining the involvement of business professionals. It then provides hands-on practice with skills in more challenging topics such as generalisation, recursion, subtyping, modelling time and history, presenting models to non-technical groups, the connection between E-R modelling and dimensional modelling, and many more.

Learning Objectives
- Apply techniques that engage business professionals in developing a concept model / conceptual data model;
- Use entity-relationship modelling to depict entities, facts, and rules at three levels of modelling – contextual, conceptual and logical models;
- Understand and presenting “learning models” in developing the data model – Visual story, and Kinesthetic;
- Apply event analysis and other techniques to discover and meet additional requirements;
- Use subtyping, recursion, multi-way associations, and other structures to model difficult rules;
- Model change, correction, and time-dependent business rules with “temporal data models”;
- Rapidly develop a first-cut dimensional model from a well-structured ER model;
- Prepare and deliver a data model review presentation to a non-technical audience.

Course Outline

Essentials of Data Modelling
- What really is a data model or concept models?
- Essential components – entities, relationships, attributes, and rules
- Hands-on case study – how data modelling resolved business issues, and supported other business analysis techniques
- Guidelines for comprehension – how to lay out Entity-Relationship Diagrams (“ERDs”)
- The narrative parts of a data model – definitions and assertions
- Group exercise – getting started on a data model, then refining it
- Common misconceptions about data models and data modelling
- The real purpose of a data model
- Contextual, Conceptual, and Logical Data Models – purpose, audience, definition, and examples
- Overview of a three-phase methodology for developing a data model

Establishing the Initial Conceptual Data Model
- Top-down vs. bottom-up approaches to beginning a data model – when is each appropriate?
- A bottom-up approach focusing on collecting and analyzing terminology
- A structure for sorting terms and discovering entities
- Exercise – developing an initial conceptual data model
- Entities – what they are and are not
- Guidelines for naming and defining entities
- Three questions to help you quickly develop clear, useful entity definitions
- Exercise – identifying flawed entities
- Six criteria that entities must satisfy, and four common errors in identifying entities
- Identifying relationships
- Fundamental vs. irrelevant or transitive relationships
- Good and bad relationship names
- Multiplicity or cardinality – 1-1, 1:M, and M:M relationships, and useful facts about each
- Common errors and special cases – recursive, multiple, and supertype-subtype relationships
- Attributes – guidelines and types
- Attributes in conceptual models vs. logical models

Developing the Initial Logical Data Model by Adding Rigor, Structure and Detail
- Transition to the logical model – shifting the focus from entities to attributes
- Multi-valued, redundant, and constrained attributes, with simple patterns for dealing with each
- An understandable guide to normalisation – first, second, and third normal forms
- Higher order (fourth and fifth) and other normal forms
- Exercise – developing the initial logical data model
- Four types of entities – kernel, characteristic, associative, and reference
- Guidelines and patterns for dealing with each type of entity
- How to draw your E-R Diagram for maximum readability and correctness
- Optional and mandatory relationships
- Considering time and history when looking at relationships
- Typical attribute documentation
- A common source of confusion and disagreement – primary keys
- What primary keys are, what they’re really for, and three essential criteria
- The four Ds of data modelling – definition, dependency, detail, and demonstration
- E-R Diagramming – symbol sets and their problems, rules for readability and comprehension

Correctly Handling Attributes
- Granularity – dealing with non-atomic, or overly granularly over-defined attributes
- Dealing with reference data and the “Types vs. instances” problem
- Three attributes that always need a qualifier
- Vector modelling – entity or attribute?

Interesting Structures
- Generalisation, Recursion and the Two Together
- Generalisation (subtyping) – when to use IL, and when not to
- Generalisation with and without specification
- Guidelines for using recursive relationships
- Generalisation and recursion working hand-in-hand as a cure for literalism
- Recognising lists, trees, and networks, and modelling them with recursive relationships
- Modelling difficult rules by combining generalisation (subtyping) and recursion
- Staying clear on generalisation vs. roles, states, and aggregation

Modelling Time, History and Time-Dependent Business Rules
- Historical vs. audit data, and when to show them on a data model
- Thanks, Sarbanes-Oxley! Why we need “as-of reporting” and how to model data corrections
- “Do you need history?” – how to tell when your client is misleading you
- Modelling time – special considerations for recording past, present, and future values
- Four variations on capturing history in a data model
- Seven questions you should always ask when a date range appears

Modelling Rules on Relationships and Associations
- Using multi-way associations to handle complex rules
- “Use your words” – how assertions, scenarios, and other techniques will improve your modelling
- Associative entities – circular relationships, shared parentage, and other issues
- Alternatives for modelling constraints across relationships
- Advanced normal forms – how to quickly recognize potential 4NF and 5NF issues
- A simpler view – why the five normal forms could be reduced to three

Preparing and Delivering a Data Model Review Presentation
- Context – your audience, and why the model matters to them
- It’s a story, not a data model! Building a storyboard
- Five key techniques for presenting data models or other technical subjects
- The mechanics of the data model review presentation
- A demonstration

Bridging the “E-R vs. Dimensional” Divide – the World’s Shortest Course on Dimensional Modelling
- The perils of dimensional modelling without understanding the underlying E-R model
- Spotting facts and dimensions – the relationship between dimensional models and E-R models
- Saving time – building first-cut dimensional model from an ER model

Academic Group Booking
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Business-Oriented Data Modelling Masterclass

Alec Sharp via Live Streaming only

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Presenter

Alec Sharp has deep expertise in a rare combination of fields – process modelling, analysis, and redesign; business-oriented data modelling and requirements specification; and business-oriented data modelling. Increasingly, his work involves facilitation and organisational change. He is a popular conference speaker and wrote the book on business process modelling, “Workflow Modelling: Tools for Process Improvement and Application Development.” Popular with process improvement specialists, business analysts, consultants, and business professionals, it is consistently a top-selling title on business process modelling, analysis, and design, and is widely used as an MBA textbook. He was awarded DAMA’s Professional Achievement Award, a global award given to one business professional a year for contributions to the Data Management profession.

Audience

- Specialist data modellers, data architects, data analysts, and DBAs
- Business analysts, business architects, enterprise architects, and application architects
- Application / solution developers

- especially on Agile teams
- Business professionals, Subject Mattes’ Experts, and Project / Programme Managers involved in the analysis, design, and development and control and configuration, Audit system.
- BI (Business Intelligence) professionals, DW (Data Warehouse) professionals, big data specialists, data scientists, analytics specialists, and data lake implementers
Essentials of Data Warehouses, Lakes and BI in Digital Business

Dr. Barry Devlin

Overview

Business Intelligence (BI) has made data the foundation of decision making since the 1990s. Today, digital business is fundamentally reinventing decision making, by putting information from every person and data from every sensor at decision makers’ fingertips. It challenges them to use it to address every aspect of business, to create anew every existing process, and to reinvent, not just decision making, but the entire enterprise.

Call it BI or analytics, serve it from a warehouse or a lake, it doesn’t matter. The implications span the entire business and IT environments across the full breadth of the organisation.

Modern architectures, technologies, and methods in data management and analytics incorporate all today’s technological advances in databases, NoSQL stores, and data preparation, as well as SOA, metadata, distributed access, collaboration, etc. And they directly address current issues, such as operational BI and analytics, strategic decision making, analytics, information discovery, and enterprise-wide decision management.

Expanding from his comprehensive and respected “Business Unintelligence” architecture to emerging topics such as the Internet of Things, algorithms, and artificial intelligence, Dr. Barry Devlin charts the essentials of data warehouses and data lakes, BI and analytics to build a digital business from the existing data warehouse and BI systems running enterprises today.

Learning Objectives

- The meaning and implications of digital business
- Drivers, structure and components of decision-making support architectures
- Data and Information—for data warehouses, marts and lakes
- Possibilities and challenges of new database and data management technologies
- Formal and informal processes—getting from information to action
- Data virtualization and preparation tools for integration across warehouses and lakes
- Positioning and using algorithms and analytics in support of decision making
- People—action-oriented decision making
- The importance of business context and user roles in decision processes
- Planning and implementation—practical steps for building modern warehouses, lakes and BI systems

Course Outline

Digital Business—History and Emergence
- A brief history of decision-making support
- Origins and meaning of digital business

An Architecture Combining Data Warehouses and Data Lakes
- The emergence and impact of big data, the Internet of Things and artificial intelligence
- A new layering approach—Information, Process, and People
- The pillars of a new architecture that supports multiple storage technologies

The Information Resource—the Foundation for Everything
- Information/data classes—human-sourced, machine-generated and process-mediated
- Big data—hype and reality, sources and types, implications for business and IT
- Key considerations—timeliness, consistency, structure/context, and reliance/usage
- Metadata as information—sources and stores, tools and techniques
- Relational database evolution—structures, software and hardware
- NoSQL data stores, Hadoop-based databases, XML, JSON-based and other data stores

The Business Processes—Getting from Decisions to Actions
- Data Preparation, ETL, Data Warehouse Automation, Wrangling, and Data Virtualisation
- The new role of users in “application development”
- Understanding adaptive, closed-loop business processes
- Service Oriented Architecture and Microservices
- A model for decision making and action taking—the adaptive decision loop

The People—Understanding Needs and Engaging Innovation
- Motivation and the workings of the human mind in business systems
- Classes of BI—information-centric, process-centric and collaborative
- BI analytic and other decision support tools

Decision-making and action-taking in a closed-loop, real-time environment
- Augmenting and/or Automating decision making and action taking
- The emergence and importance of artificial intelligence

Planning and Implementation
- Evolution—not revolution
- The Staged Implementation Roadmap
- Organisational considerations; changes in IT culture and responsibilities
- Selected possible first migration steps

Audience

- Enterprise, systems, solutions and data warehouse architects
- Systems, strategy and BI/analytics managers
- Data warehouse/lake and systems designers and developers
- Data and database administrators
- Tech-savvy business analysts

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your queries.
With the enormous growth of big data, especially from Internet of Things (IoT) devices, now is the time to start planning for and building skills and infrastructure in artificial intelligence (AI) to transform BI and analytics in support of decision making in your business. AI has had a long, chequered history. Multiple periods of over-optimism have been followed by “AI Winters” since the 1950s. Today, AI has come of age and is being embedded in mainstream technology from cars to call centres, and smartphones to analytic systems. With the IoT instrumenting the physical world and social media doing the same for society, a massive deluge of data is driving extensive uptake of AI. It all suggests that this “AI Summer” is not going to fade. Under a range of names—deep learning, autonomous vehicles, cognitive computing, robotics, algorithms and more—AI, combined with big data, IoT and automation, offer both the threat and the promise of revolutionising all aspects of IT, business and, indeed, society. What do you need to know about them? How should you prepare for and react to their growing importance in your business and IT environments, especially in their likely transformation of decision-making support? In this one-day workshop, Dr Barry Devlin builds upon his two-day “Delivering the Digital Business: Starting from BI” course to enable you to take full advantage of emerging AI technology. Starting from familiar computing paradigms such as programming, operational systems, databases, analytics and business intelligence, we explore the relationship between big data and many types of deep learning. We position traditional and emerging BI tools and techniques in the practical application of AI in the business world. Extrapolating from the rapid growth of AI and IoT in the consumer world, we see where and how it will drive business and likely impact IT. Based on new models of decision making at the organisational and personal levels, we examine where to apply augmentation and automation in the roll-out of AI. Finally, we address the ethical, economic and social implications of widespread adoption of artificial intelligence.

Overview

Learning Objectives

- What is AI? A brief history and explanation of its evolution, key concepts, and terminology
- Understanding how IoT and social media enable AI as the new driver of business value
- A comprehensive architecture and framework spanning from traditional BI to AI and beyond
- Approaches to applying AI to decision making—augmentation vs. automation
- Implications of AI, social media, and IoT for the IT department
- New technology solutions needed to build out business applications of AI and IoT
- Evolving from today’s BI to future AI-based solutions
- Ethical, economic, and social considerations for your business and beyond

Course Outline

Artificial Intelligence—History and Foundations
- A brief history of AI
- Terminology—conflicting and overlapping
- Artificial neural networks and other techniques
- Advances and directions in AI

Data Warehouse

Applying AI to Decision Making
- AI in information preparation and governance
- From BI to analytics to AI
- Operational, tactical and strategic decision-making considerations
- Automation vs. augmentation

Building the Digital Future with AI—Key Considerations
- Ethical considerations for analytics and AI in business
- Wider ethical concerns for society
- The impact of AI on the economy and employment
- Avoiding societal breakdown

Decision Making for Social Media and IoT
- From traditional BI to operational analytics
- Centralisation vs distributed processing
- Model management
- Positioning AI, Data Lake and

Audience

- Enterprise, systems, solutions and data architects in data warehouse, BI and big data
- Systems, strategy and business intelligence managers
- Data warehouse and systems designers and developers
- Tech-savvy business analysts

In-House Training: This course is available on-site. E-mail customerservice@irmuk.co.uk with your enquiries.
“Really enjoyed it – I leave having learned loads and full of ideas on how to apply at Lloyds. Thank you.”
Marta Korus, Lead Business Analyst, Lloyds Banking Group

“I have absolutely loved the conference. Great people, great presentations, great venue.”
Thamar Miles, Lead Analyst, Data & BI, Whitbread

“I learnt so much from the event; networked and met some fantastic people.”
Louise Thanthong, Head of Transformational Change, O2

“Great networking opportunities with people at the top of their game!”
Emmanuelle Sangster, Business Change Manager, AWE Plc.

“There’s a reason why people keep coming back year after year – great conference (as always).”
Terje Bremnes, Enterprise Architect, Helse Vest, Norway

“Possibly the best conference I’ve ever attended for the insights and ideas it has provided.”
Philip Ainsworth, Business Architect, Student Loans Company

“It is a ‘must attend’ MDM & DG event for any practitioners and the program gets better every year.”
Mary Drabble, Principal Data Governance Analyst, Aberdeen Standard Investments

“High quality event with top speakers and topics. A perfect mix between MDM and Data Governance status and trends.”
Galand Vincent, Senior Business Analyst, ING Belgium

“Great conference, the best event in Data Management! Excellent speakers and very interesting content.”
Ana Teresa Szmoes, Caixa Geral de Depósitos

“This event never fails to enable me to connect with people who I can learn from and who can re-energise me in Data Management.”
Andy Moore, Process Specialist, Information, Rolls-Royce
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The registration fee includes the lectures and documentations.

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* with the exception of Ten Steps to Data Quality and Zachman Enterprise Architecture Certification

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IRM UK
2nd Floor
Monument House
215 Marsh Road
Pinner
Middlesex HA5 5NE
T: +44 (0)20 8866 8366
E: customerservice@irmuk.co.uk
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