Data Literacy: Skills Everyone Needs

Data literacy is a popular term in the business world these days, but both the concept and its value are often vaguely articulated. In this engaging and informative 2-day training course, you will learn what each individual needs to know about data. Drawing on broad industry experience to map out a strategic path for organizations and teams, you will uncover the essentials of what it means to be Data Literate.

Whether you’re an executive wishing your business was better informed, or an individual analyst trying to better explain and persuade with data, you’ll find valuable examples and tactical models throughout this course. Data literacy is not a science or a math skill. It is a life skill, achievable by everyone. This course covers every dimension of data literacy, from being to doing, starting with the most basic human aptitude: being curious! This course builds from there, to data fluency and eventually on to data brilliance. Everyone can navigate that journey.

Data literacy is an absolutely critical skill for today’s workforce. Not just to meet the current needs, but also to set individuals and organizations up for the future of work. This course will help give you a thorough understanding of what data literacy is, why it is important today, and how to learn to become more data literate. It is full of very useful and practical tips and strategies that can be applied across both your work and personal life as you interact more with data.

## Learning Objectives

After completing this course, you will be able to:

* Understand the omnipresence of data in our daily lives
* Recognize various sources of data in different contexts
* Identify factors contributing to the data skills gap
* Explore the four levels of analytics: Descriptive, Diagnostic, Predictive, and Prescriptive
* Define the four characteristics of data literacy: Reading, Working, Analyzing, and Communicating with data
* Recognize the intersection of data literacy with organizational strategy
* Understand the relationship between data literacy and key areas like data science, data visualization, and data governance
* Develop skills in reading data and fostering data fluency
* Combine data literacy with each level of analytics for a holistic approach
* Apply a comprehensive strategy for problem-solving across the analytics spectrum
* Acknowledge leadership's role in promoting data literacy
* Integrate data literacy learning into organizational strategy and culture
* Emphasize Curiosity, Creativity, and Critical Thinking as foundational elements
* Apply these principles to enhance data interpretation and problem-solving
* Follow a structured framework (Ask, Acquire, Analyze, Integrate, Decide, Iterate) for data-informed decision-making
* Understand the relationship between data literacy and broader data and analytical strategies

## Audience

This course is designed for a diverse audience with varying levels of familiarity with data and analytics concepts. The appropriate audience includes:

* Business Professionals:
  + Managers and executives seeking to make informed, data-driven decisions.
  + Professionals interested in integrating data into business strategy and operations.
* Data Analysts and Scientists:
  + Individuals working with data who want to enhance their analytical skills.
  + Those interested in gaining a deeper understanding of the broader data landscape.
* Leaders and Decision-Makers:
  + Executives responsible for shaping organizational culture and strategy.
  + Decision-makers who want to leverage data for strategic planning and problem-solving.
* Technology and IT Professionals:
  + IT specialists aiming to integrate data technologies into business processes.
  + Professionals working on data-related technologies such as artificial intelligence and machine learning.
* Anyone Interested in Data Literacy:
  + Individuals with a general interest in understanding the role of data in the modern world.
  + Those who want to improve their data literacy skills for personal or professional growth.

This course aims to be accessible to a broad audience by providing foundational knowledge and progressively delving into more advanced concepts. It is suitable for both beginners and individuals with some prior knowledge of data concepts, ensuring that participants can tailor their learning experience based on their background and objectives.

## Course Outline

### The World Of Data

#### Data: The World We Live In

#### Data: The Skills Gap

#### Data: Why Is There A Skills Gap?

#### Data: What’s Next?

### The Four Levels Of Analytics

#### Data And Analytics – There Are Four Levels?

#### The Four Levels Of Analytics

#### Level 1: Descriptive Analytics

#### Level 2: Diagnostic Analytics

#### Level 3: Predictive Analytics

#### Level 4: Prescriptive Analytics

#### Real-World Examples Of The Four Levels Of Analytics

### Defining Data Literacy

#### Characteristic 1: Reading Data

#### Characteristic 2: Working With Data

#### Characteristic 3: Analyzing Data

#### Characteristic 4: Communicating With Data

### The Data Literacy Umbrella

#### Data And Analytical Strategy

#### Data Literacy And Data Science

#### Data Literacy And Data Visualization

#### Data Literacy And Executive Teams

#### Data Literacy And Culture

#### Data Literacy And Data Quality

#### Data Literacy And Data Governance

#### Data Literacy And Ethics And Regulation

### Reading And Speaking The Language Of Data

#### Reading Data

#### Data Fluency

#### The Data Dictionary

#### Reading Data And Data Fluency Strategy

#### Organizational Example

### Combining Data Literacy And The Four Levels Of Analytics

#### Data Literacy And Descriptive Analytics

#### Data Literacy And Diagnostic Analytics

#### Data Literacy And Predictive Analytics

#### Data Literacy And Prescriptive Analytics

#### Data Literacy And The Four Levels Of Analytics – The Holistic Puzzle

### The Steps Of Data Literacy Learning

#### The Role Of Leadership And Data Literacy Learning

#### The Role Of Data And Analytical Strategy And Data Literacy Learning

#### A Data Literacy Learning Framework And Approach

#### Learning For The Four Characteristics Of Data Literacy

#### Learning For A Strong Data Literate Culture

#### Other Areas Of Data Literacy Learning And Focus

### The Three Cs Of Data Literacy

#### The First C Of Data Literacy: Curiosity

#### The Second C Of Data Literacy: Creativity

#### The Third C Of Data Literacy: Critical Thinking

#### Reading Data

#### Working With Data

#### Analyzing Data

#### Communicating With Data

### Data Informed Decision-Making

#### Steps Of The Data Informed Decision-Making Framework

#### Step 1: Ask

#### Step 2: Acquire

#### Step 3: Analyze

#### Step 4: Integrate

#### Step 5: Decide

#### Step 6: Iterate

### Data Literacy And Data And Analytical Strategy

#### Data Driven Culture

#### Business Intelligence

#### Artificial Intelligence

#### Machine Learning And Algorithms

#### Big Data

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#### Embedded Analytics

#### The Cloud

#### Edge Analytics

#### Geo Analytics

### Begin Your Data And Analytics Journey

#### COVID-19 And Data And Analytics

#### Making A Recipe

#### Focus On Proactive Versus Reactive Analytics

#### Start With The Basics

#### The Gamification Of Data And Analytics

#### Find Something That Interests You And Run To It

#### Find Your Why