

MSc Computing- Enterprise Software Systems

Introduction to Business Intelligence

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Objectives:

Introduction to Business Intelligence (BI)

Definition of BI

Other Data Terminology

Evolution of BI and Analytics/Data science

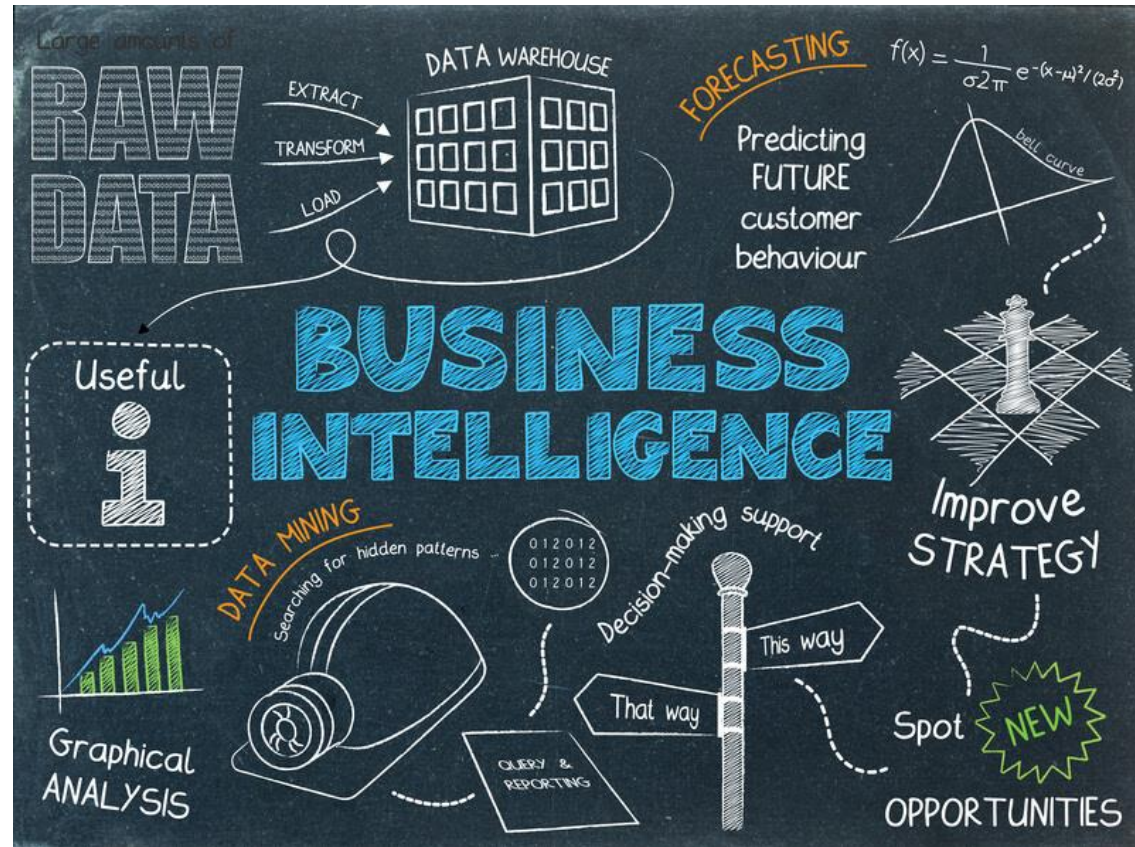
Architecture

BI Capabilities

Benefits

Microstrategy's BI Platform

What is Business Intelligence (BI)?



Definition of BI

BI is an umbrella term that includes the applications, infrastructure and tools, and best practices that enable access to and analysis of information to improve and optimize decisions and performance (Gartner, 1990).

BI's major objective is to enable easy access to data (and models) to provide business managers with the ability to conduct analysis and make decisions.

BI helps *transform* data, to information (and knowledge), to decisions and finally to action.

Many Data Terms and Buzzwords!

Data Buzzwords...

- Business Intelligence
- Data Science
- Business analytics
- Data analytics



BI and Analytics

Business Intelligence - it was an umbrella term for everything for understanding data – past present and future

BI and Analytics - both are extremely connected and interlaced in their approach towards resolving business issues and providing insights on past and present data, and defining future decisions.

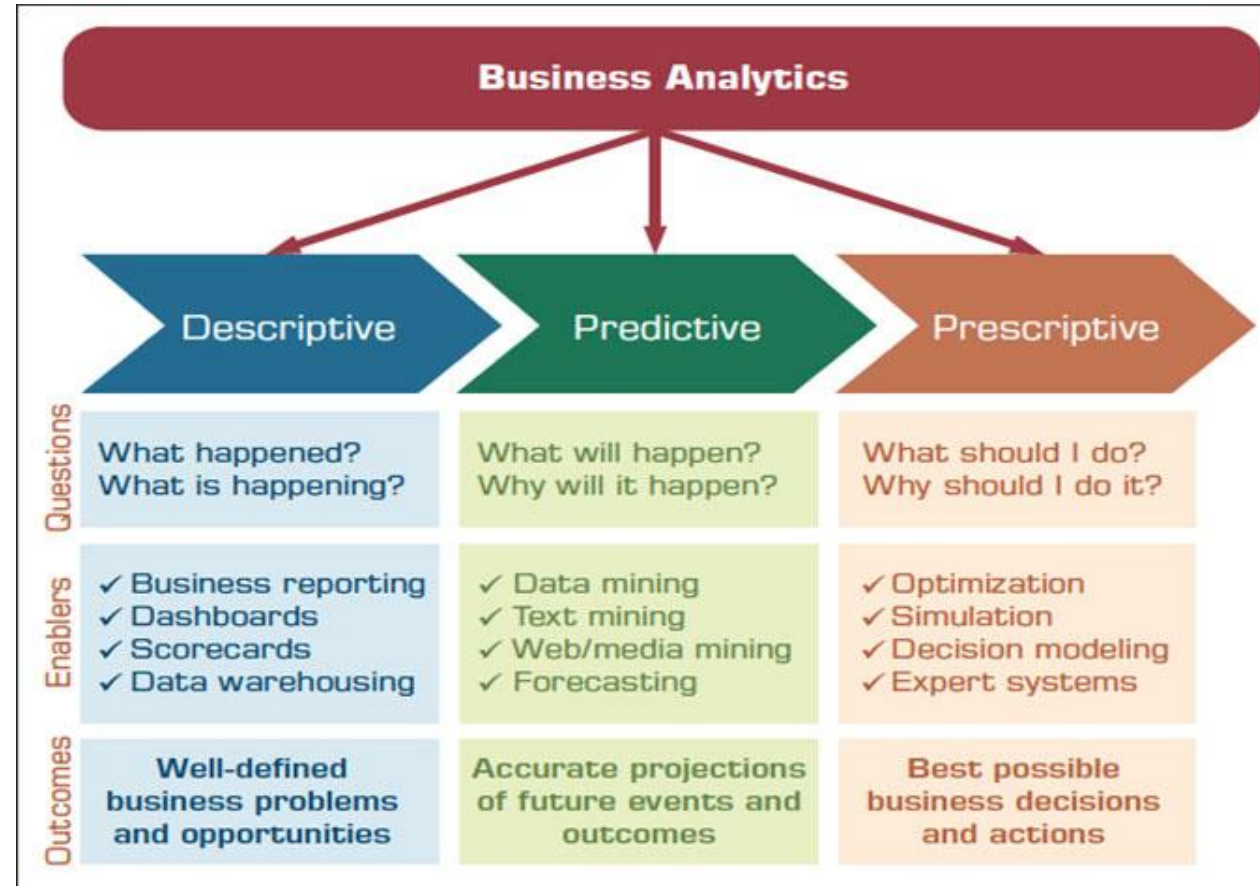
BI is more focused on the present moment of data, making the decision (and future of a company) based on current insights.

Analytics focuses also, on predictive modeling and advanced statistics to evaluate what will happen in the future

Analysis \neq Analytics

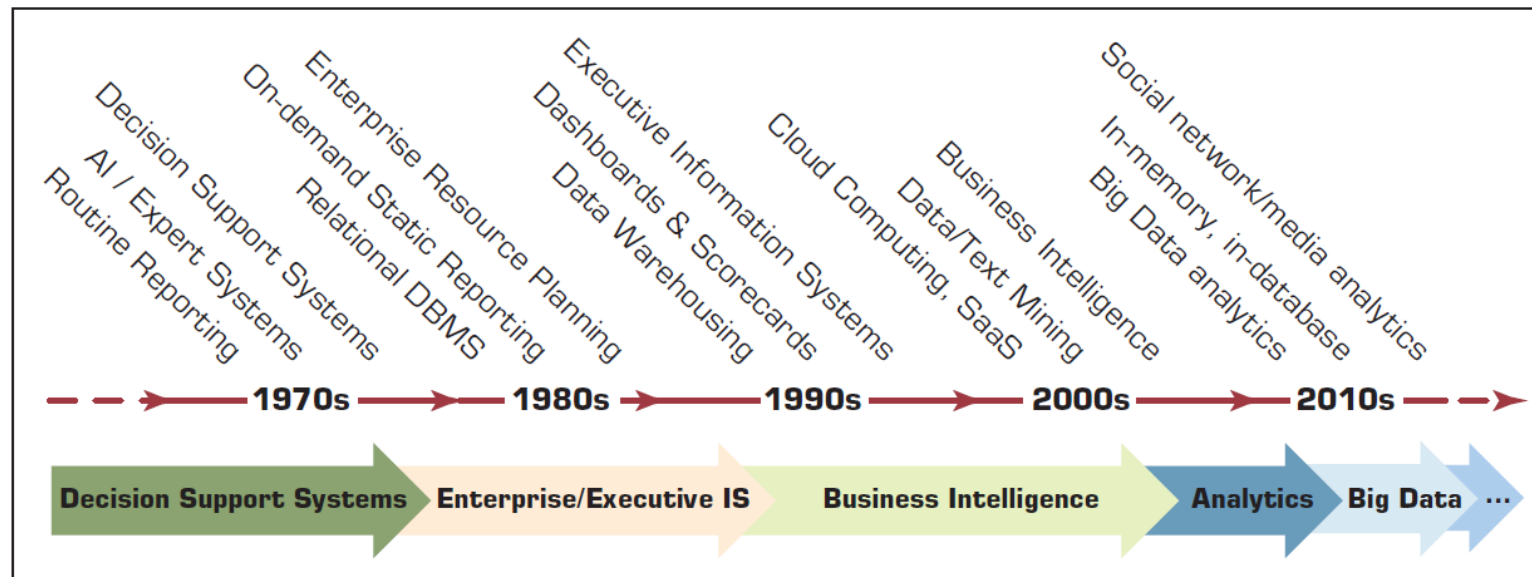


Three Types of Analytics

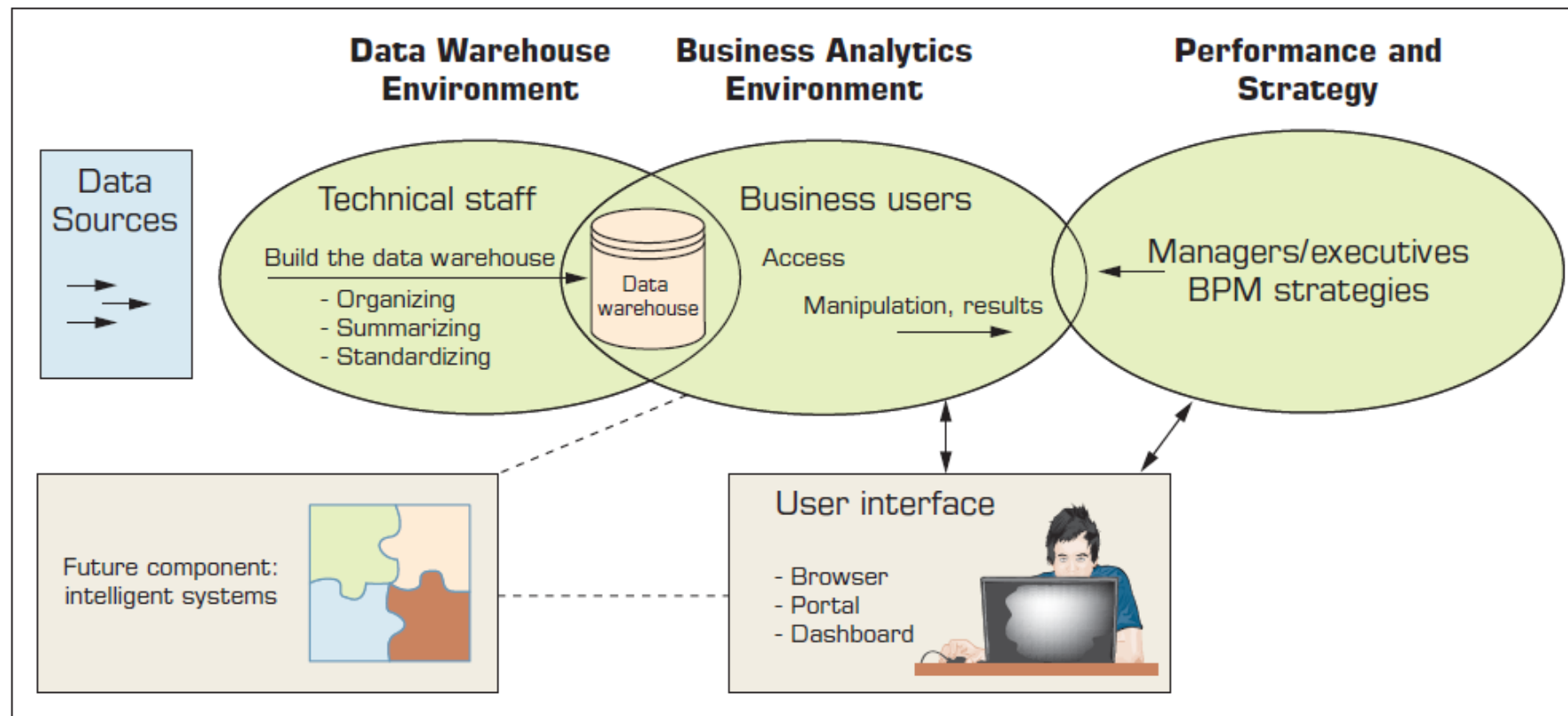


Evolution

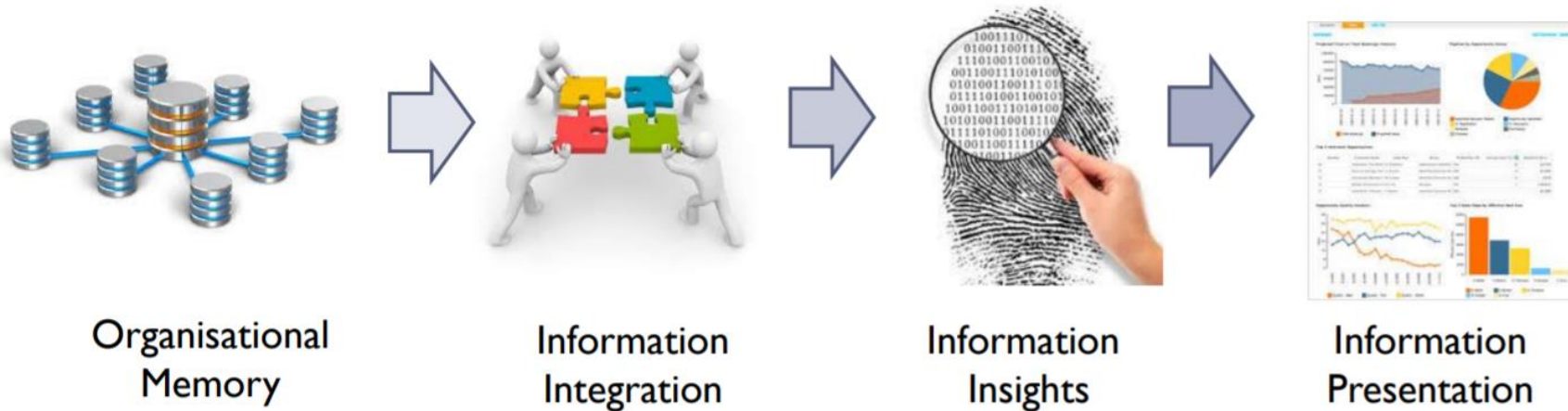
- Evolution of Decision Support, Business Intelligence, and Analytics



The Architecture of BI



Capabilities of Business Intelligence



BI Capabilities

Organisational Memory: The ability to store information and knowledge.

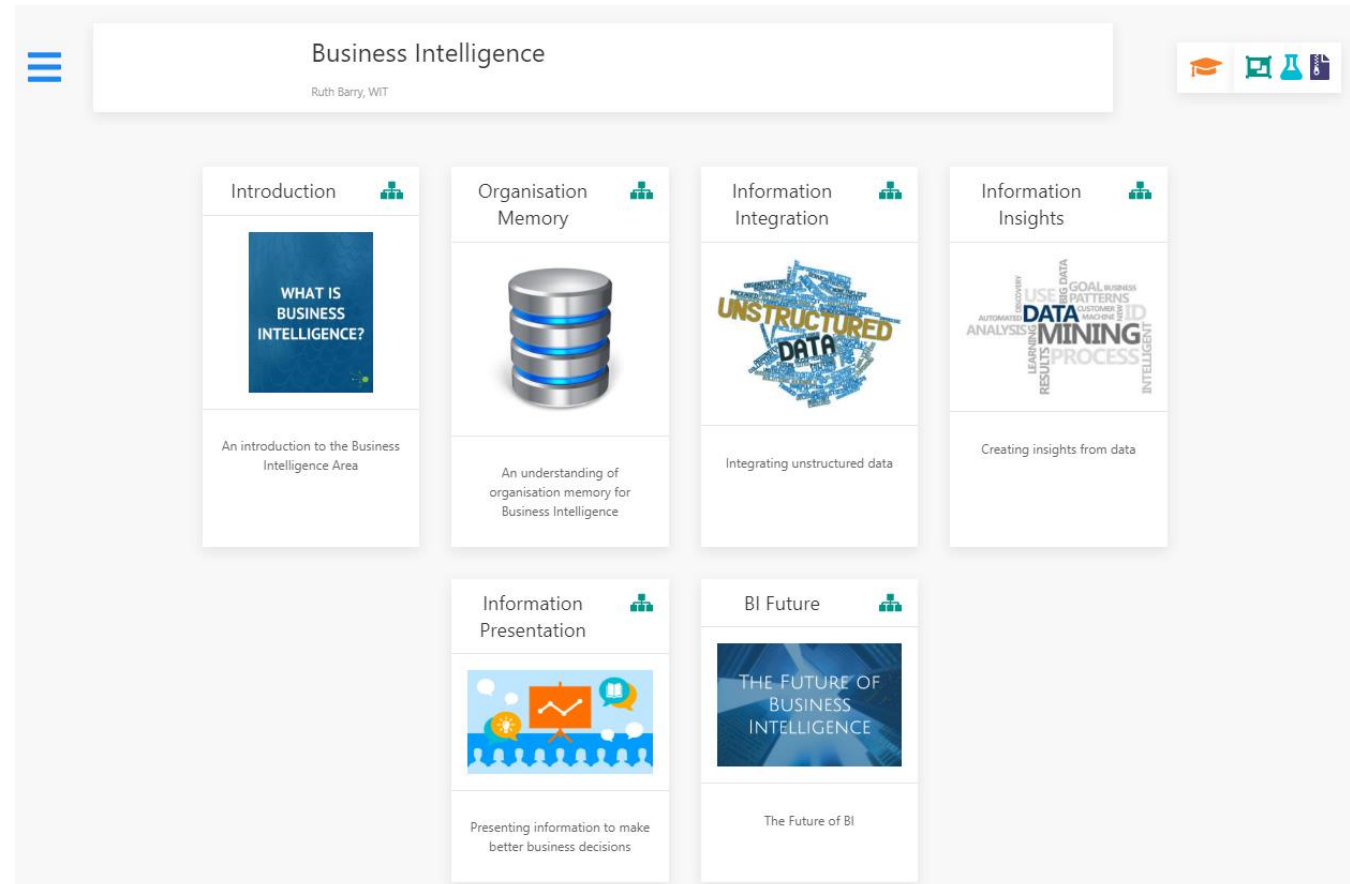
Information Integration: The ability to link structured and unstructured data from a variety of sources.

Insight Creation: The ability to develop new insights and use them in the short-term or long-term to make better decisions.

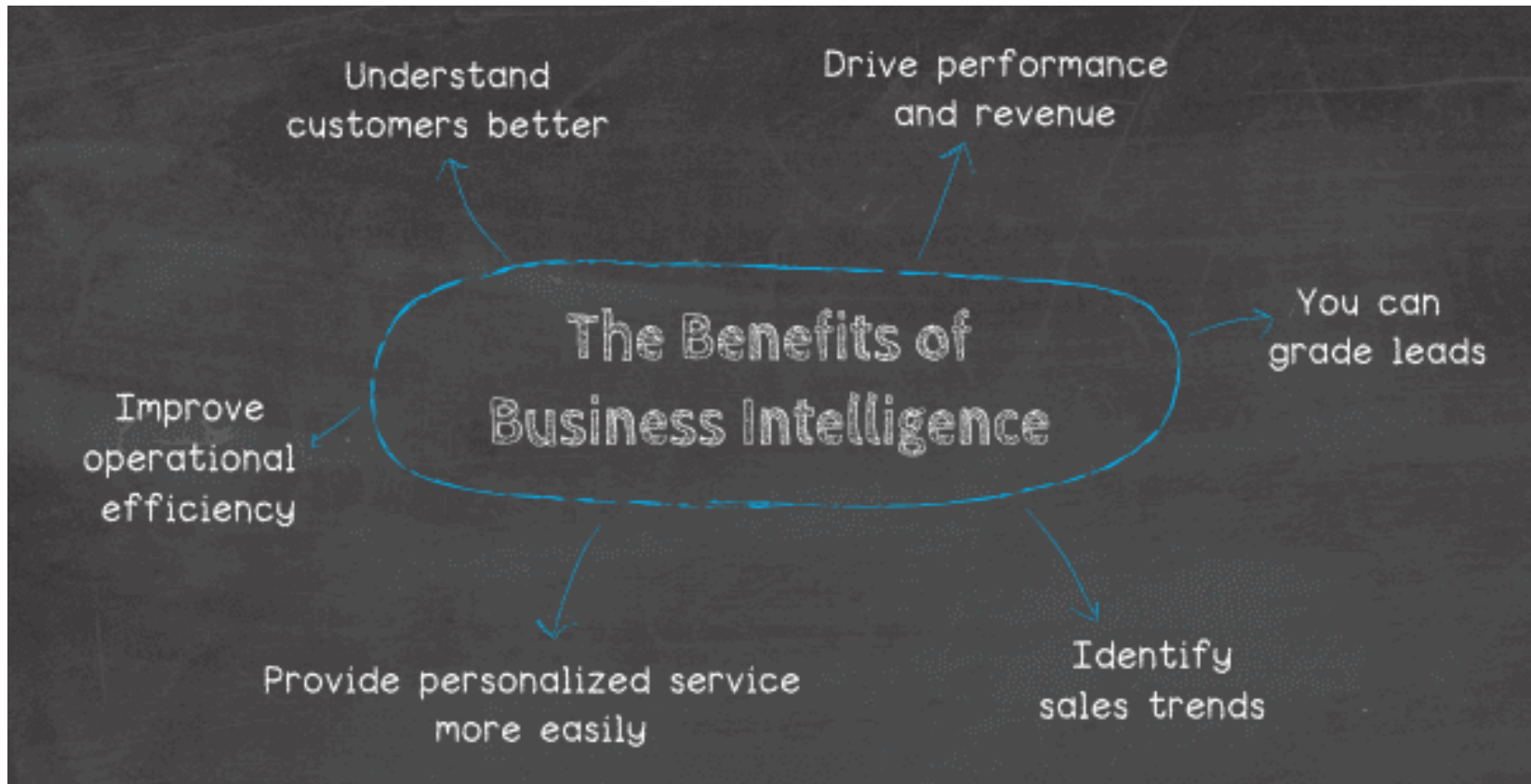
Presentation: The ability to use appropriate reporting and balanced scorecards tools, and thereby make BI more valuable to users.

Module Topics

6 sections:
After introduction on week 1, there are 5 topics to cover the 4 capabilities of BI and future BI. Each topic should take 2 weeks.



Benefits of BI



Business Value of BI

BI in Finance – What is the net income, expenses, gross profit, and net profit for the quarter/year?

BI in Accounts – What is the sales amount this month and what is the outstanding pending payment?

BI in Purchase- Who is the vendor to be contacted to purchase products?

BI in Production – How many products are manufactured in each production unit today/weekly/monthly?

BI in Sales – How many products have been sold in each area today/weekly/monthly?

BI in Quality – How many products have been defective today/weekly/monthly/quarterly/yearly?

BI in Service – Are the customers satisfied with the quality?

BI Vendor – Microstrategy's Integrated Platform



Business Intelligence Vendors



Web resources:

[Business Intelligence Overview](#)

[Business Intelligence Tools](#)

[Top 5 Business Intelligence Myths Revealed](#)

[9 TED Talks That Anyone Working in Business Intelligence Should Watch](#)

[Gartner BI and Analytics trends 2018 explored and for 2019](#)

[Healthcare BI platform market by 2023](#)