# ICT394 Business Intelligence Application Development

## Topic 01: What is Business Intelligence

### Introduction

Business intelligence (BI) has many definitions, and is a term that is used widely. To some, it is synonymous with Data Warehousing; to others it is a broader term that relates to a set of organisational outcomes. The primary aim of this topic is for us to explore some of the different ways in which BI is defined to create the foundations for our studies in this unit, and to explore how and why BI is used in organisations.

This topic has several activities, including a tutorial and computer lab. The computer lab is an introduction to a popular BI tool, Power BI Desktop from Microsoft. You should be able to complete this lab without assistance. The tutorial exercise will look at how a particular organisation has used BI to improve its business.

### What you need to do:

#### Pre-Workshop

1. Download and install Microsoft PowerBI Desktop (PBID)
   1. Download from: <https://aka.ms/pbiSingleInstaller>
      1. It is a free download, so my suggestion is that all students should try to download and install it on their machines themselves.
      2. **NB: there is no MAC or Unix version** – you can run PBID in a Windows 10 VM in Virtual Box.
   2. There are a number of installation guides for PBID, see: <https://www.microsoft.com/en-us/download/details.aspx?id=45331>
2. Watch the “Power BI Case Studies” video below, taking note of the following:
   1. For both cases discussed in the video, what was the original issue that led to the need to implement BI, and how did PowerBI help to address the issue?
   2. Why does the presenter think that PowerBI is an appropriate tool for these purposes?
   3. What does she see as being the next step in the BI implementation?
3. Read the Obeidat et al (2015) reading (link below).
4. Watch the Topic 01 Lecture Videos and/or read the Lecture Slides

#### Workshop

1. There will be no Tutorial 01
2. We will start with Lab 01. Download Lab 01 and work through the exercises there. If time permits complete Lab 01 in class, you can complete this in your own time. You will have to have completed the Computer Lab to complete the quiz.

#### After the Workshop

1. Complete the Moodle quiz for Session 01
2. Prepare answers for the **Sample Exam Questions** (see below) for this topic

### Learning outcomes

This topic contributes to the following Unit Learning Outcomes:

1. Demonstrate an understanding of the role of BI in organisations
2. Describe the common data sources that exist in organisations and their use in BI

At the completion of this topic, you should be able to:

* Provide and discuss a working definition of BI
* Explain a variety of reasons as to why BI exists
* Provide an overview of BI in terms of data, analysis and presentation.

### Key concepts

Business intelligence, knowledge organisation, data/analysis/presentation

### Resources for this topic

To undertake study for this topic, you will need:

**Online Reading:**

Obeidat, M., North, M., Richardson, R., & Rattanak, V. (2015). Business Intelligence Technology, Applications, and Trends. *International Management Review*, *11*. Retrieved from <http://search.proquest.com.libproxy.murdoch.edu.au/docview/1718903076?accountid=12629>

**Audiovisual media**

Netrix. (2018). Power BI Case Studies - YouTube. Retrieved from <https://www.youtube.com/watch?v=wDNu6ECfR3M>

### Sample Exam Questions for this Topic

* Provide a definition of BI and give an example (i.e., refer to a case study) of a BI implementation including a clear explanation of how the organisation was impacted.
  + **Using the example** you provided for the question above, discuss the major elements of BI; Data, Analysis and Presentation.