



# **L3 Data Specialist**

**Module 6:**  
**From Data Citizen to Data Specialist**

2-day class-based learning





# SESSION OVERVIEW



Introductions and overview of the 2-day class-based learning.



Engage in practical activities to support module evidence collection.



Re-cap Module 6 key concept digital learning content.

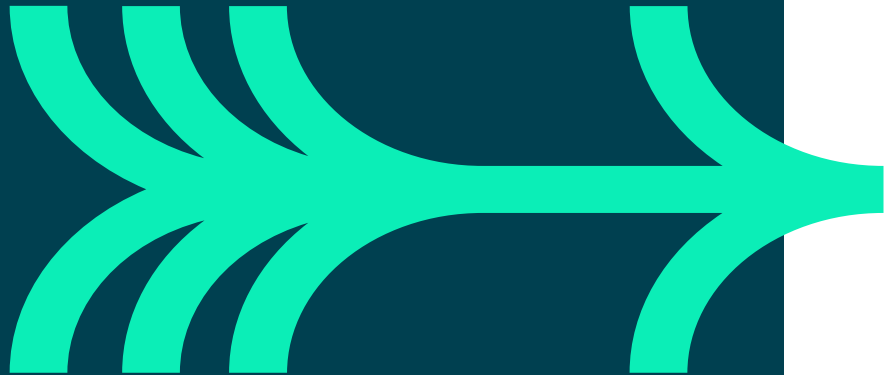


Provide support and guidance for the successful completion of Module 6.





# THE KSB FRAMEWORK

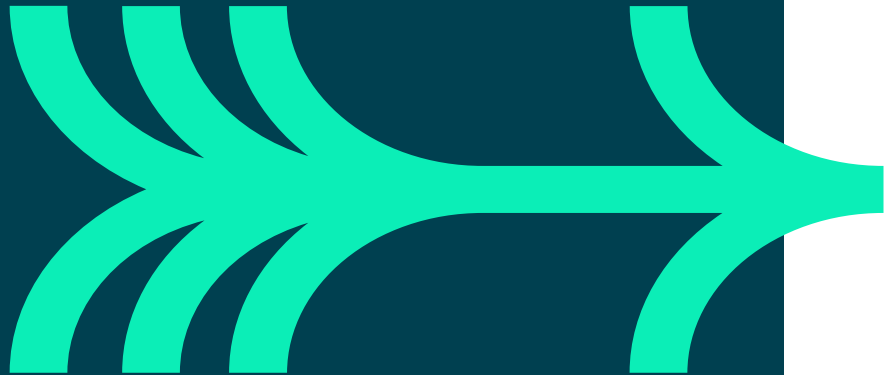


## Knowledge

**K15** The role of data in the context of the digital world including the use of external trusted open data sets. How data underpins every digital interaction across the digital landscape including applications, devices, IoT, customer centricity.



# THE KSB FRAMEWORK



## Skills

**S15** Keep up to date with developments in technologies, trends, and innovation using a range of sources.

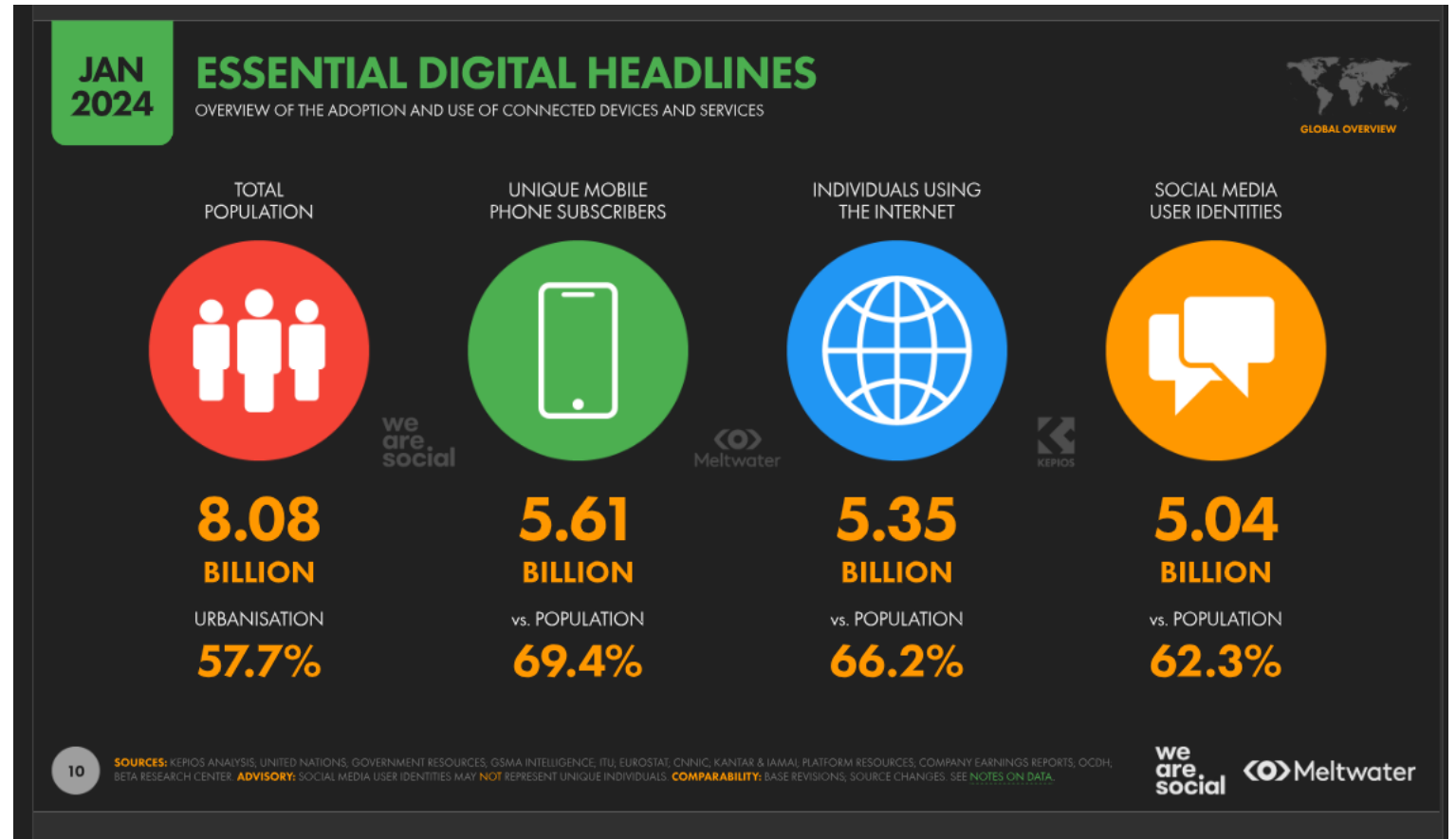


**Day 1**



# QA The changing digital landscape

Data underpins every digital interaction across the digital landscape - including applications, devices, Internet of Things (IoT) and customer centricity.



Digital 2024: Global Overview Report — DataReportal – Global Digital Insights

# QA Emerging digital trends



The Digital 2024 Global Overview Report provides extensive coverage of the latest data insights and social media statistics.

‘Data is the new oil’ – Similar reports can support strategic decision-making in organisations.

As part of your apprenticeship, you have been analysing and reporting on data trends.

The Digital 2024 Global Overview Report will further enrich your knowledge and understanding of digital trends.

[Digital 2024: Global Overview Report — DataReportal – Global Digital Insights](#)

# QA Top ten digital trends in 2024



This video will further enrich your knowledge and understanding of the most recent digital trends.

Use the information proposed, in conjunction with the slide deck, to complete the next task.

<https://youtu.be/OMTg0LIwikU>

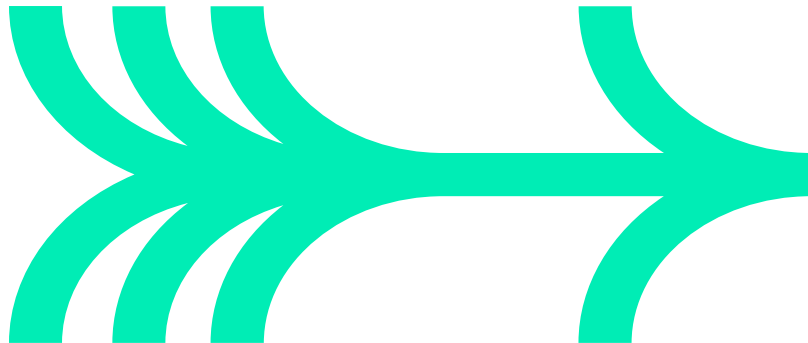




# Understand the impact of digital data

## Task:

1. Identify what insights gained from the data provided on new digital trends (report and video) could help in your organisations' digital strategic planning.
2. This could be linked to the use and growth of social media platforms, or changes in behaviours because of global events and influences.
3. Discuss your findings in groups and feedback to the class.
4. Allocated time: up to 70 minutes.



# QA Activity: Internet of Things (IoT)

Read through the article below and complete the following tasks:



<https://easternpeak.com/blog/6-cool-examples-of-internet-of-things-applications-and-how-to-develop-one/>

## Tasks:

1. Read the article and discuss the following key areas of the article in groups.

## What is IoT?

## How has IoT impacted on the following industry sectors?

- Retail and Supply Management
- Automotive
- Agriculture
- Logistics
- Healthcare

2. Feedback to the class.

# QA Research activity

## IoT: Automation

- 1 Undertake research to provide specific industry sector examples of how automation has improved business operations.
- 2 The article provided discusses how certain industries will be transformed by robotics and automation. Read the article to provide further understanding and support to your research.

## Top 5 Industries That Will Be Transformed By Robotics and Automation

JUNE 17, 2020 BY POLLY — [LEAVE A COMMENT](#)



<https://roboticsandautomationnews.com/2020/06/17/top-5-industries-that-will-be-transformed-by-robotics-and-automation/33221/>



# END POINT ASSESSMENT (EPA)

Opportunity to discuss the EPA, evidence collection and provide transparency for students.

- Types of EPA evidence
- Scenario demonstrations
- Review



# QA End Point Assessment (EPA)

## Assessment methods

### Assessment method 1: Scenario Demonstrations with questioning

#### Overview

Apprentices must be observed by an independent assessor completing 2 scenario demonstrations in which they will demonstrate the KSBs assigned to this assessment method. This will be supplemented by questioning by the independent assessor to establish the apprentice's understanding of underpinning reasoning. The end-point assessment organisation will arrange for the observation to take place, in consultation with the employer. Scenario demonstrations must be carried out over a total assessment time of 90 minutes. The demonstrations may not be split, other than to allow comfort breaks as necessary. The independent assessor has the discretion to increase the total time of the scenario demonstrations by up to 10% to allow the apprentice to complete the last task that is part of this element of the EPA. The apprentice will be given one demonstration at a time by the independent assessor and they will complete the first scenario demonstration and questioning before going on to the second demonstration.

Source: [https://www.instituteforapprenticeships.org/media/4612/st0795\\_data\\_technician\\_l3\\_assessment-plan-for-publication\\_c27\\_qm-adjustment-october-2020.pdf](https://www.instituteforapprenticeships.org/media/4612/st0795_data_technician_l3_assessment-plan-for-publication_c27_qm-adjustment-october-2020.pdf)

# QA End Point Assessment (EPA)

## Typical Scenarios:

### Scenario Demonstration 1 – Data Gathering

#### Example content

- Access multiple data sets from different sources
- Blend or correlate these data sets via common fields to generate an aggregated data set - Store this aggregated data set for later analysis
- Review the aggregated data set for obvious trends or patterns, documenting the findings for use by those conducting analysis on it - Value of data to the organisation

### Scenario Demonstration 2 – Data Analysis and Validation Example

#### content

- Access a data set and filter it to contain only those records stated as being relevant for the purpose
- Examine the filtered data set and document primary statistics about the records and their most important fields (as related to the stated data purpose)
- Cleanse the filtered data set of errors, correcting those where appropriate (e.g. removing duplicates, fixing spelling mistakes), highlighting others for further review (e.g. outliers), documenting all actions taken
- Conduct field encoding and/or structural normalisation actions to improve efficiency of storage and/or analysis

# QA End Point Assessment (EPA)

## Assessment method 2 component 1: Professional Discussion underpinned by a portfolio

### Overview

This assessment will take the form of a professional discussion which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. It will involve questions that will focus on the KSBs mapped to this method of assessment.

The rationale for this assessment method is:

A professional discussion is a two-way dialogue between the apprentice and independent assessor. It allows the apprentice to evidence how they have met the KSBs which are underpinned by evidence drawn from their portfolio. A professional discussion is a well-recognised method widely used within the digital sector. It allows for knowledge, skills and behaviours that may not naturally occur as part of another assessment method to be assessed and more easily discussed. The apprentice can draw upon other supporting evidence in the portfolio and can effectively determine the authenticity of that supporting evidence.

As a structured, in-depth two-way conversation between the independent assessor and apprentice, the professional discussion will provide assessment of understanding knowledge, skills and behaviours.

# **Activity: Preparing for EPA**

## **Scenario Demonstration Practice**

The Scenario Demonstration Practice is an excel based self-contained activity that aims to provide learners additional practice for their end-point assessment (EPA), particularly in relation to the Scenario Demonstration.

The activity will be split and carried out across Day 1 and Day 2 of this module.

The activity was not designed to be completed within the time limits of the EPA, but it aims to support learners in practicing more and further familiarizing with tools and techniques which will be useful for their EPA.

You may undertake the activities using any application or tool. However, Excel + Power Query is recommended.





# Day 2



# QA **Example of generative AI models:**

## **ChatGPT**

ChatGPT is an AI language model developed by OpenAI, based on the GPT (Generative Pre-trained Transformer) architecture. It is designed to generate human-like text based on the input it receives.

ChatGPT can understand and respond to a wide range of conversational prompts, answer questions, engage in dialogue, and provide assistance on various topics.

It has been trained on vast amounts of text data from the internet, allowing it to generate coherent and contextually relevant responses.

Source: ChatGPT

# QA How can you use ChatGPT?

## 15 ChatGPT Limitations That You Need to Know!

INTERESTS

7 MINS | Uploaded on May 15, 2023 | Last updated on Feb 12, 2024

amber

ChatGPT  
Limitations



[15 ChatGPT Limitations That You Need to Know! | Amber \(amberstudent.com\)](#)

## 20 Fun Things To Do With Chatgpt

INTERESTS

6 min | Uploaded on May 12, 2023 | Last updated on Jan 18, 2024

OpenAI

Research Product Safety Company

### Introducing ChatGPT

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

[Try ChatGPT](#)

[Read about ChatGPT Plus](#)

[20 Fun Things To Do With Chatgpt | Amber \(amberstudent.com\)](#)



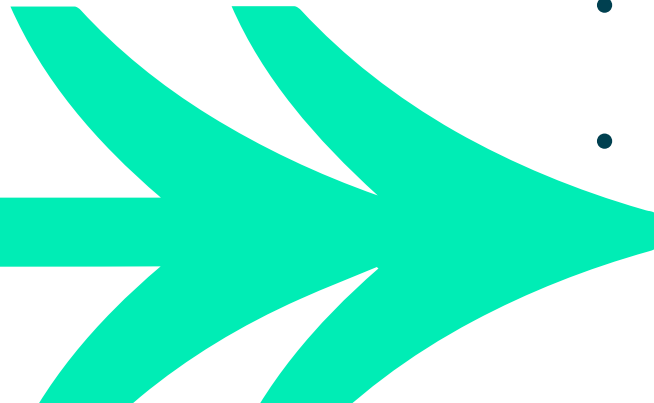
## Activity: ChatGPT

ChatGPT may be an incredibly useful tool, which can be used to support your learning and working activity.

Like every tool, it does have limitations and peculiarities, some of them have been described in a fun way by the previous two articles.

### Task

- In small groups, familiarise yourselves with ChatGPT by doing some research on new technologies and trends that have been mentioned in your online learning.
- Focus on big data applications of interest for your organisation and industry.
- Discuss your findings and impressions about using ChatGPT in class.
- Allocated time: 50 mins.



# **Activity: Preparing for EPA**

## **Scenario Demonstration Practice (to be continued from day 1)**

The Scenario Demonstration Practice is an excel based self-contained activity that aims to provide learners additional practice for their end-point assessment (EPA), particularly in relation to the Scenario Demonstration.

The activity will be split and carried out across day 1 and day 2 of this module.

The activity was not designed to be completed within the time limits of the EPA, but it aims to support learners in practicing more and further familiarizing with tools and techniques which will be useful for their EPA.

You may undertake the activities using any application or tool you wish too. However, Excel + Power Query is recommended.



# **Online activity (review): Bringing it all together**



**As part of your on-line learning, you were introduced to the Activity: Bringing it all together.**

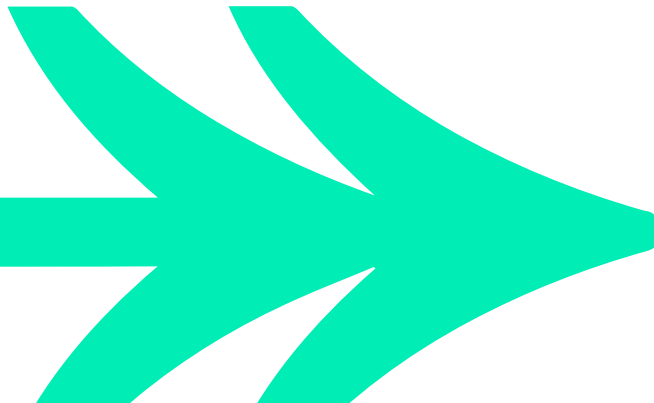
## **Activity objective**

- In the activity you were required to create a Personal Development Plan (PDP), customized to your own development needs.
- You were also required to demonstrate an up-to-date understanding of trends, technologies and innovations.
- Re-visit this activity and ensure that you have a completed set of evidence.

## Activity: Follow up

### Task

1. In small groups, discuss the ways in which you maintained your currency in terms of keeping up to date with trends and developments in technologies (10 minutes).
2. Discuss also findings on the PDP. Do you share the same development areas within the group? Is there any common goal or skills training (10 minutes)?
3. Group feedback to the class from discussion findings (15 minutes).



# **Activity: Preparing for EPA**

## **EPA test - assessment method 1** **Airbnb in New York**

This activity will provide you with the chance to familiarize with an EPA test format.

Learners will be split in breakout sessions to complete the assessment. Differently than a real EPA, learners will be allowed to talk and support each other to complete the assessment.

The test will have a duration of 90 minutes, split in two sub-sessions of 45 minutes.

The tutor will intervene during breakout sessions to facilitate the understanding of the assessment, and ask questions on the work done, simulating some elements of the assessors' role during EPA.

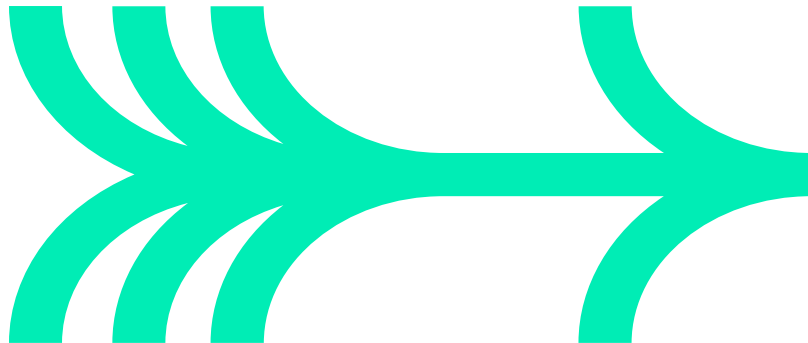




# **Live activity: Trends and new technologies in your industry sector**

This activity will enable you to apply and re-call knowledge across the following key knowledge areas:

**S15:** Keep up to date with developments in technologies, trends and innovation using a range of sources.



# **QA Live activity: Trends and new technologies in your industry sector**

## **Task**

Undertake research to identify what developments in technologies, trends, and innovation impact upon your industry sector. Research how technologies are being used, the benefits and impact and emerging trends (e.g.) if your role was retail based, you could research trends in digital marketing or the role of IoT.

## **Deliverables**

This activity requires you to be creative in your research and evidence collection.

Produce a one-page 'Trends and Technology' newsletter / blog / infographic based on research. This should examine developments in technologies, trends and innovations that impact on your industry sector.

Allocated time: 60 minutes.

## QA 1:1 Support



Up to 15 minutes of 1:1 support time has been integrated into the Day 2 workshops.



In preparation, please ensure you can demonstrate what online learning tasks you have engaged with / completed.



# Q&A section



## QA **Close and final remarks**



Continue gathering evidence for activity 6.3 back in the workplace.



Re-visit modules 1-6 online learning content to consolidate understanding.



# Thank you!

We hope you enjoyed this learning journey.