OCR Cambridge Technicals *in* ICT [Level 3]

IT- Year 12 – Unit 2 – LO2

UNIT 2 LO2 KNOWLEDGE ORGANISER

Understand the styles, classification and the management of global information

2.1 INFORMATION STYLES AND THEIR USES

Text (different character sets, e.g. Western, Cyrillic, Arabic, etc.)

Graphic (e.g. logo, photograph, diagram)

Video (e.g. instructions on how to carry out a software update, live broadcast of a music festival) animated graphic (e.g. pop-up book character, operation of the human heart)

Audio (e.g. spoken instructions, music track)

Numerical (e.g. profit, date and time)

Braille text (e.g. written report printed on a Braille printer)

Tactile images (e.g. NASA's Hubble Space Telescope images converted into tactile images for people who cannot explore the images by sight)

Subtitles (e.g. translated speech for a film in a foreign language)

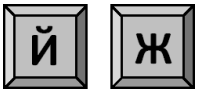
Boolean (e.g. yes or no answer on a form)

Tables and spreadsheets (e.g. simple database tables and spreadsheets)

Charts and graphs (e.g. identifying trends, making comparisons)

Consider.. when is it appropriate to use each of these methods?

Which methods are suited to which purposes?



Organisations may need to use alternative character sets when communicating in other languages

Images can be used to communicate important ideas. The different use of images requires different design ideas. For example, a road sign or warning sign needs to be simple, to communicate its meaning quickly

The use of sound, subtitles, braille and textured images makes content available to users with disabilities who may not otherwise be able to access it. This is called **ACCESSIBILITY**.

Charts and graphs can be used to convey information - but this is only effective if the right type of chart is chosen and it is presented correctly.

2.2 INFORMATION CLASSIFICATION

Sensitive

Non-sensitive

Private

Public

Personal

Confidential

Classified

Partially anonymised

Completely anonymised

Impacts on different stakeholders

A **stakeholder** is an individual (or group of individuals) affected by the actions and decisions of an organisation – stakeholders can be **internal** or **external**

EXAMPLE: A local school decides to expand its Sixth Form

INTERNAL SH:	EXTERNAL SH:
Pupils Teachers Governors	Competing Sixth Forms & Colleges Residents

CLASSIFICATION	DESCRIPTION	EXAMPLE
Sensitive	Not generally available	*Medical Records*
Non-sensitive	Widely available	*Address of a business*
Private	Covered by D.P.A	*Employee address, phone*
Public	Information about government and public sector organisations	*Government spending on schools and hospitals*
Personal	Private info about	*Religion, income, political*
Confidential	Private info to be kept	*School info about a child's*
Classified	Public info to be kept	*NHS patient database*
Partially anonymised	Some of the information that links to the source, is removed	*Interviewee for a TV documentary*
Completely anonymised	All of the information that links to the source, is removed	*Eyewitness crime report for Police*

2.3 QUALITY OF INFORMATION

Characteristics (e.g. valid, bias, reliable, comparable)

Importance of good quality information to stakeholders (e.g. innovation, agility, improved strategic decision making and focus)

Consequences of poor quality information on stakeholders (e.g. misinformation, reputational damage)

Consider.. why do holders of information need access to **GOOD QUALITY** information?

What is the impact of **POOR QUALITY** information?

VALID:

Is the information current or out of date?

Is it accurate and timely?

BIAS:

Does the information reflect both sides?

Are alternative views presented?

RELIABLE:

Can the source of the information be trusted?

Can it be verified?

COMPARABLE

Can the information be compared with other, similar information?

GOOD INFORMATION SUPPORTS DECISION MAKING

For example...

Working towards achieving company objectives

- Looking for new opportunities
- Responding to trends
- Changing strategic direction based on new information

GIGO (GARBAGE IN GARBAGE OUT) is a phrase used to summarise the potential problem with making decisions using poor quality data

MISINFORMATION

Poor information can lead to hesitation in the decision making process. It can undermine any good decisions that have been made, or, even worse, lead to a wrong course of action being taken

REPUTATIONAL DAMAGE

An organisation making poor decisions is at risk of damaging its reputation. This could result in poor publicity, a reduction in sales or customers or poor reviews and image on social media. Given how quickly a poor reputation can spread, this can be hard to undo.

2.4 INFORMATION MANAGEMENT

Collecting, storing and retrieving (e.g. adding a new member to a cycling club membership database)

Manipulating and processing (e.g. producing a graph from a table of data) •

Analysing (e.g. looking for patterns in annual rainfall in an area)

Securing (e.g. storing patient records on an encrypted hard drive)

Transmitting (e.g. posting a printed school report to a parent)

Impact on individuals and organisations (e.g. additional costs associated with keeping sensitive information secure)

Consider.. What do organisations have to consider when securing and transmitting data to ensure that this is done properly?

Methods such as system backups, secure servers and anti-virus software can be expensive; so what are the benefits?

COLLECT — Data can be collected via online or paper forms.

STORE — Data is stored using database software, which can structure and organise the data so that it is usable.

RETRIEVE — Queries can be used to retrieve data, based on specific criteria. **SQL** (Structured **Query Language**) is used to do this in a database.

MANIPULATE — Spreadsheet/database software can manipulate further– i.e. filtering or further refining search results.

PROCESS — Data can processed to be suitable for analysis - for example, information can be sorted, or presented in graph/table form

ANALYSE — Analysts can look for patterns in data, or use “What If?” analysis to draw conclusions or model different possibilities.