

## ICT Module 4 Terminology

### Why learn terminology?

Both to understand the course and to be able to answer an exam question properly, you will need to understand all of the terminology associated with this unit.

Knowing terminology empowers you to be able to understand the subject and to show to the examiner that you understand the questions set.

This booklet outlines the terminology that you must know for Module 4.

<b>Application audit trail</b>	Used to track what has happened – could be recording before and after each transaction, normally included User ID and timing information, plus any value changes. Done so that lost data/information can be recovered; also to track unlawful use of application, especially in financial systems of all kinds.
<b>Audit software</b>	Packages can be bought, plus often bespoke, audit systems are used to track and check transactions and events, again normally in accounting type applications more than any others. (This is a different application of audit software to that used to track machine/network etc usage)
<b>Code of conduct</b>	This is a set of procedures and rules to do with behaviour in using the organisation's ICT (in this context) facilities – rules for changing and keeping passwords safe, things like switching off/logging off, locking rooms etc
<b>Code of practice</b>	A set of procedures and rules that pertain to ICT (in this context) e.g. there are various "Internet codes of practice" (try a search engine); most school/college have a network code of practice – that says things like, "Each user will have their own log-on and password; they will have their own area of the file server; their access rights will be ..." and so on

<b>Data Accuracy</b>	Gathered data can easily be inaccurate – should be subject to verification and validation checks; needs checking back regularly with the data source and updating if needs be. Also pertains to grading systems – e.g. in an exam, a mark between 30 and 45 = 'C'. If only the 'C' is held, it is not known if the mark was 30, 35, 40 or 45 or anything in-between – therefore it is not as accurate as it could be.
<b>Data Capture</b>	Is the process of gathering the data into a system for processing.
<b>Data capture method</b>	Different methods have been studied in ICT2 – bar code scanning, keyboarding, OCR, OMR, MICR, Swipe card reading etc
<b>Data Processing system</b>	Precise/low level/electronic data capture is used for repetitive/routine business activities
<b>Data transcription</b>	This is the inputting, normally from a hand- or type-written physical form, of the data into the capturing system. E.g. a mail-order form has to have the details keyed into the ordering system (usually the same one as is filled in on-screen by the call-centre staff and also the same one that is filled in on-line for the web-based system)
<b>Data translation</b>	The raw data may be gathered in one form or format but be translated into a different form or format to be input to a system, normally using some form of translation table e.g. when amalgamating meter reading systems, the codes used are not the same – therefore someone has to write a piece of software (program) that translates one set so it agrees with the other.
<b>Development Life Cycle of an IS</b>	Stages are Feasibility Study; Systems Analysis (also known as Requirements analysis then logical design); Design (also known as Physical or Detailed design); Build and Unit Test (also known as Implementation); Functional Testing (also known as System testing or Alpha testing); User testing (also known as Beta testing); Implementation (also known as Installation); Review; On-going maintenance.
<b>Effective presentation</b>	Must be suitable for task – level of person reading it – e.g. no point in giving a MD a detailed list of all transactions taking place at a particular point of sale – decision makers need grouping and rationalisation and interpretation based on pre-agreed rules
<b>External information needs</b>	That information that external agencies might need e.g. suppliers need ordering information from the organisation; exam boards need student details from a school or college; inland revenue needs details of tax paid etc from any employer
<b>External source</b>	Information/data from an outside agency e.g. tax and National insurance bands and rates are sent from central government as input/use in payroll system; buying in names

	and addresses for marketing purposes
<b>Formal information flow</b>	A system with <i>fully documented and agreed procedures</i> , stating stages of flow control, exception handling and distribution
<b>Formal Methods (you only need to be aware that these exist, not to be able to describe them)</b>	Of developing an information system – Traditional waterfall (as described above); Rapid application development methods (RAD, DSDM – chop the project into chunks and develop and implement each bit in turn, rather than wait until all is done before implementation); Object-oriented methods (where some data or an event is the object – used in VB-style point and click systems)
<b>Implementation level of task</b>	Also known as <i>Tactical</i> . Normally middle management – day-to-day or short-term management activities
<b>Industry standard package</b>	Off-the-retail-shelf e.g. MS Office Me; Sage Accounts; Lotus notes – in fact anything that is used in a large amount of small to medium businesses.
<b>Informal information flow</b>	Information that <i>naturally arises</i> , Such as a phone call, personal conversation, during a meeting or by observation
<b>Information System</b>	Collection of processed data to improve performance or used as an aid to decision making/support for management
<b>Internal information needs</b>	That information which the business requires to function effectively
<b>Internal source</b>	Information arising from an internal system as input to this one, or from a data gathering exercise that is part of the organisation's portfolio of operations .e.g in a supermarket, information from the point of sale system is used as input to a sales MIS system.
<b>Levels of management</b>	Higher – Strategic; Middle – Tactical; Possibility of Lower – Operational. Information needs to be at right level for task.
<b>Management Information system (MIS)</b>	a system to <i>convert data from internal and external sources</i> into information, communicated in an <i>appropriate form</i> . ..and why -so that <i>managers at different levels</i> of an organisation can use <i>the information</i> produced to enable them to make <i>effective decisions</i>
<b>Operational level of task</b>	Repetitive, continuous, hour-to-hour activities – e.g. stocking shelves in a supermarket
<b>Risk analysis</b>	To <i>identify each element</i> of a successful information system, <i>place a value</i> – to the

	business – on that element, <i>identify any potential threats</i> to that element, the <i>likelihood of the threat occurring</i>
<b>Strategic level of task</b>	Used by Higher (board level) management for deciding where to take the business
<b>Value of information in decision making</b>	(not directly monetary value). Must be relevant, accurate, up-to-date etc so that the right decisions are made with the best information available

□ **Factors influencing success or failure of an IS**

- Inadequate analysis
- Emphasis on computer system
- Lack of professional standards
- Lack of management involvement in design
- Inappropriate or excessive management demands
- Concentration on low level data processing, not on information needs
- Lack of management knowledge re capabilities of ICT and systems

□ **Factors influencing an IS in an organisation**

- General organisational structure
- Legal and audit requirements
- Information flow
- Hardware and software
- Standards
- Planning and decision making methods
- Management organisation and functions
- Responsibility for the IS within an organisation
- Behavioural factors (personality, motivation, adapt to change)

□ **Characteristics of Information**

- Where from – source - internal, external, primary, secondary
- Nature – quantitative, qualitative, formal, informal
- Level – strategic, tactical, operational
- Time span – historical, current, future
- Frequency (of collection/production) – real-time, hourly, daily, monthly etc
- Use – for planning, control, decision making
- Form – written, visual, aural, sensory
- Type – disaggregated (i.e. separate/itemised), aggregated (i.e. grouped), sampled

□ **Good information and delivery**

- Relevant
- Accurate
- Complete

- To right person
- Promoting user confidence
- At right time
- Understandable
- In right detail
- Via correct channel of communication

□ **Factors that must be managed when change occurs**

- People
  - their attitude to change,
  - possible re-skilling,
  - training issues,
  - employment pattern & condition changes
- Organisational
  - Appropriate levels of management
  - Right (level of) information to right (level) of person
  - Information strategy, codes of practice
  - Internal procedures/standards
- Other
  - Security procedures
  - Compliance with legislation (Health & Safety, Data Protection, Computer Misuse, Software copyright)
  - Ability to cope with legislative changes (e.g. tax rules change mean payroll systems need amending)
  - Interfaces with external suppliers or purchasers or other external bodies

□ **Why have a corporate information security policy and what does it cover?**

- Prevention of misuse
- Investigation into possible misuse
- Identify staff responsibilities
- Misuse detection
- Check procedures being followed
- Agree disciplinary procedures

□ **Threats to information systems**

- Physical security breaches
- Personnel security (know thy employees?)
- Communications security
- Document security lapses
- Hardware security
- Software security

□ **Factors in Disaster Contingency Planning**

- Scale/size of organisation
- Costs of plan - external contract needed

- Timing (how important to recover immediately?)
- Likelihood of disaster happening

□ **User support options**

- Industry standard –
  - Existing user base user groups
  - Supplied utilities (or downloadable)
  - Internet site information
- Software house –
  - Help desk/phone line
  - Help system included with package
  - Communication systems as above

- ? Support articles/newsletters
- ? Specialist bulletin boards
- ? Email systems for information/enquiry
- ? On-site technical support
- ? User guides/ other documentation similar to above

□ **Training options**

- CBT
- On-line tutorial
- Classroom – in-house or external
- Self-study/step-through guide
- Video/interactive video
- One-to-one training

□ **Characteristics of a good ICT team**

- Strong leadership
- Close monitoring of progress
- Control over change
- Appropriate allocation of tasks
- Control over resources
- Monitoring of costs