National Progression Award
Digital Literacy
G8HE 34

Digital Communication Methods

Student Notes
Unit: F1KY 09
SCQF level 3
National Progression Award

Digital Literacy

G8HE 43

Digital Communication

Methods

Student Notes

Unit: F1KY 09

SCQF level 3

SQA
Contents

Contents........................................................................3

What is communication? ........................................4
  Reading ..................................................................8
  Writing ......................................................................13
  Oral communication ............................................15
  Body language ....................................................16
  Digital communication ......................................20
What is communication?

Communication is about five main things:

- reading
- writing
- oral communication
- watching body language
- using digital methods

**Reading** all kinds of text and understanding what that text is trying to tell us. It could be a short story in a magazine, a romantic novel, or even a technical reference manual. What is important is that we try to understand the concepts, characters and story being communicated through the words.
Writing of all kinds — from notes, plans and full stories to expressing ideas and opinions.

Listening to people communicating their thoughts, ideas, opinions and evaluating what they have said and trying to form your own thoughts, ideas and opinions.
Discussing, through communication ideas, concepts and views of people about topics they have an opinion about.

**Digital communication** is about the use of our reading, writing and oral skills whilst using digital communication devices. These might include computers, mobile phones, televisions, the internet, e-mail and lots of others types of communication methods.
Watching or viewing is also a way of communicating, because most of us will watch television at some point during the day. It may be to catch the news, or listen to the weather, or tune in to our favourite TV soap.

Do we look at how people are dressed? What size they are? What does their body language tell us? These are all important in helping us communicate with other people. Let’s look at these methods in more detail.
Reading
What kinds of things can you read?

**Newspapers** convey the news from around the world. Newspapers are written by reporters who may be recording facts, expressing their opinions, or reporting the opinions of others.

They write about all kinds of things, from the latest gossip stories to medical breakthroughs. The information they convey is varied and diverse. The reporter may know about a particular topic, or the reporter may interview people with the relevant experience.

Photo: (c) i-stockphoto/Michal Kozlarski
Magazines and periodicals provide articles about all kinds of topics from fashion and make-up to car maintenance. The articles are written by people who have experience in that particular topic, or who are able to interview people with the relevant experience.

Books can be fiction or non-fiction.

In fiction, the writer makes up a story about one or more characters. It could be the writer describes how the character feels and acts whilst solving a crime, or falling in love, or searching for lost treasure. Fictional stories can be set in any time period, in the future, the past, or the present. The skill of the writer is very important and they must research their topic so they can correctly convey the story to the reader.
Non-fiction books are often technical and exact in conveying a subject, like a computer manual, a geography text book or a maths books. The writer must be an expert in their particular field and be able to convey the relevant information to the reader in a format that the reader can follow, perhaps whilst installing software for example.

Leaflets, advertisements, letters and mail are all forms of communication which someone wants you to read. Whether it is a campaign leaflet from your local councillor, an advert for pizza delivery, a letter from your bank, or mail from friends, every piece of printed material will be conveying a message to you the reader. It is important you understand what the writer was trying to convey, whether it is a fictional story or a factual non-fiction piece.

For example reading a computing manual can seem very hard and confusing, but sometimes using the index at the back of the book may allow you to go directly to the information you need.
ACTIVITY 1

Follow the steps below to carry out this activity.

Steps:

1. Access the Microsoft Digital Literacy course. Your tutor will tell you where it is located.
2. Go to the section called Digital Lifestyles.
3. Read and watch the section ‘The Modern Digital Experience’ on:
   (a) Expansion of digital technology
   (b) Merging technologies and digital media devices
4. Read and watch the sections ‘Digital Audio’ and ‘Digital Video’.
Game

Step 1

Do the self test exercise in the Modern Digital Experience section.

Step 2

Do the Tile and Sort games in the Digital Audio section.

Step 3

Do the drag and drop game in the Digital Video section.

Step 4

Do the self tests in each of these sections:

- Modern Digital Experience
- Digital Audio
- Digital Video
Writing
Writing is important because it conveys a point you are trying to make. It is important to know:

- who it is for (the person who will read it)
- the subject you are writing about
- why it is needed
- and whether there have been previous communications about the subject

For example — an e-mail about a technical problem between the person who has the problem and the technical support person trying to solve the problem.

Points to think about when writing
Letters, memos, emails and reports can be for business, education or personal use. It is important that the correct grammar, spelling, style and etiquette are used when sending a business letter, e-mail or report but these things may not be so important when communicating with a friend.
Notices, leaflets and articles are trying to let you know about something — it could be a notice about something in work, a leaflet about a new shop in your area or even a newspaper article about something that happened recently. The message should clearly express the idea or concept (make sense), indicate any instructions that might be required (for example, ‘add your name if you want to participate in the work activity’) and express all points of view — especially if it is a newspaper article.

How the written communication is laid out will influence the people reading it. If you have trouble spelling: use a dictionary, make sure that you use capital letters when starting a sentence, and use the correct punctuation. Always read your written communication before sending it to someone. A note written in haste may send the wrong message because you did not take the time to check the points you were trying to make.
Oral communication

When someone talks are you able to take in what they are saying? Is their speech clear? Are they speaking too quickly? Can you hear them? Can you understand what they are trying to say?

How people talk influences how you listen. If people shout or use words that are not appropriate, will it make you want to listen and talk with them again? If someone is presenting information to you, what kind of language are they using? Is it too technical? Can you understand the topic?
When you are in a discussion, it is important to listen and not interrupt whilst the speaker is talking. It is important that after listening you are able to ask questions and discuss with others the topic and add value to the discussion.

**Body language**

Watching someone’s body language can give you an insight into how confident they feel about the topic they are talking about. You can often tell how a person feels by watching their body language.

For example, someone with their arms crossed over their chest is often seen as defensive. Tapping or drumming fingers is seen as a person being impatient.
Are these two people communicating with each other? Look at their body language.

A person who is standing erect, chin up gives confidence and shows interest and gives a positive impression. Looking relaxed and smiling makes other people relax and smile too. Eye contact is very important when talking to someone.
ACTIVITY 2

Follow the steps below to carry out this activity.

Steps

1. Access the Microsoft Digital Literacy course. Your tutor will tell you where it is located.

2. Go to the section called Digital Lifestyles.

3. Read and watch the section ‘Digital Photography’ on:
   (a) Introduction to Digital Cameras
   (b) Photo Management and Editing
   (c) Photo Printing

4. Read and watch the section ‘Digital Technologies and Career Opportunities’ on:
   (a) Digital Technology and your Workplace
   (b) Career Opportunities as Information workers
   (c) Career Opportunities as IT Professionals
   (d) Career Opportunities as Developers
Game

Step 1
Do the self test exercise in the Digital Photography section.

Step 2
Do the Tile and Sort game in the Digital Photography section.

Step 3
Do the Sort game in the Digital Technology and Career Opportunities section.

Step 4
Do the self test in the Digital Technology and Career Opportunities section.
Digital communication

There are many different ways of communicating digitally. You may have used some or all of them in everyday situations. The first is used on most modern computers.

**Electronic mail** (or **e-mail** for short) is a method of creating, sending, storing and receiving messages over an electronic communication system. It uses a **protocol** (a rule) for sending messages called Simple Mail Transfer Protocol (**SMTP** for short).
You can send e-mail over an internet connection or over an **intranet** (a collection of computers within a specific area like an office building).

E-mail users can communicate to each other by sending and receiving messages. Sometimes you want to store messages to read later and your e-mail software will allow you to do this.

How you use e-mail is often referred to as **netiquette** (good manners when sending e-mail).

**E-mail text**

An e-mail address is made up of several parts.

The first part is the name of the person you are sending the message to. Sometimes you use the first and last name separated by either a dot or an underline dash e.g. john.smith

The next bit is the ‘at’ symbol. It looks like this: @.
It is used to direct your message to a specific place, either on the internet or on an intranet. The next part is the address of the organisation eg yahoo.com. This tells the mail system where to send the message.

How internet e-mail works

The diagram above shows a typical sequence of events that takes place when Alice composes a message using her e-mail software (sometimes called the **Message User Agent**).
1. She types in (or selects from an address book) the e-mail address of who she wants to send the message to, then she clicks ‘Send’.

2. The Simple Mail Transfer Protocol knows to send the e-mail to the local **mail server** (a special computer that has addresses for lots of other e-mail servers). Sometimes this might be an **Internet Service Provider** (ISP), who keeps information about other ISPs.

3. The mail server or ISP looks up a list of names and finds one that matches the e-mail address Alice is sending to. In this case it is bob@b.org.

4. The e-mail is passed to the local e-mail server for Bob. This is b.org. It knows about all of its e-mail users so passes the message onto Bob. Bob gets a message from his e-mail software telling him he has a new message.

5. If there was a problem with the address, the e-mail server would send back a message telling Alice why her message was not delivered.
There are lots of different types of e-mail software, like Microsoft Outlook, Outlook Express and Lotus Notes. They all work in similar ways to that described above.

Every e-mail message has two main parts:

1. The **header** part contains information about who you are sending the e-mail to, who is sending the e-mail message, and information about the e-mail.

2. The **body** part contains your message (the text you have typed in).

It is important to remember that e-mails are like letters. Sometimes you will write a personal letter, so the text can be fun and spelling and punctuation might not be so important. If you are sending an e-mail to a business, you will want the text to be more formal, perhaps have a signature and it should be checked for spelling errors and have the correct punctuation.
E-mail problems
Like all methods of communication e-mail has problems — however, your e-mail software can help reduce these problems.

**Spamming** is where companies get your e-mail address and send you unwanted e-mail. Spammers send several hundred million messages each day and it slows down the computer networks. It also means you can sometimes receive hundreds of e-mails in your inbox, from people you do not know.
**Phishing** is where people who e-mail pretend to be from a company or bank and they ask you to confirm your username and password or even supply credit card details. This type of e-mail should be **DELETED** immediately. The information you supply can be used to charge money to your credit card or even take out a loan in your name. It is fraud and there are laws protecting you against this. Common companies targeted are eBay and PayPal.
E-mail **worms** or **viruses** can are often sent as e-mail attachments. They contain code that can attack your computer software and destroy information. There have been a number of very high profile cases where an e-mail worm has wiped out a whole organisation’s business, because a virus has destroyed the company’s data.

More information about e-mail can be found at: http://en.wikipedia.org/wiki/Email
Instant messaging

**Instant messaging** (IM) is like e-mail but it is done in **real time** (you get a response very quickly).

You have instant messaging software installed on your computer and in the software you set-up a contact list of people you want to talk to. Most IM software lets you know who is on-line and available to chat. You can send text, pictures and even video using IM and whoever you are communicating with can respond as soon as they see the text appear in their IM software.

It works much faster than e-mail. Popular IM services include AOL’s Instant Messenger (AIM), AOL’s ICQ, Microsoft’s MSN Messenger and Yahoo!
Mobile phones

Mobile phones are used by lots of people today to talk, send text messages, take and send pictures, listen to music, or surf the internet. In fact you can do so much with a mobile phone it can be a complete communication tool.

There are many different types of mobile phone and it is important to understand some of the basic terminology you will see in mobile phone adverts. The terminology tells you what features the mobile phone has and what it can be used for.
When you see 3G or 4G it simply means ‘3rd generation’ or ‘4th generation’ of mobile communications and often relates to the service the phone provides like speed for transferring text, video, data, internet access etc.

Many mobile phones have colour screens, the ability to send and receive text, pictures or even video. Most new phones can also play music and have additional features like internet access.

**Bluetooth** is a specification for wireless communication for data and voice between mobile phones. It specifies how mobile phones talk to each other. Any Bluetooth-enabled device can talk to another Bluetooth-enabled device up to a range of about 30 feet.

To use a mobile phone you need to subscribe to a **Service Provider**. There are many to choose from including Vodafone, O2, Orange, Virgin etc.

Each provider will give you the option to have a **contract** phone where you pay a monthly fee, or a **pay-as-you-go** phone, when you pay for the phone and then buy top-up cards with credit on them to use in your phone.
Every mobile phone contains a **Subscriber Identity Module (SIM)** card. This card is inserted inside the phone and identifies the user account on the subscribed network. It authenticates the user and provides some data storage.

The **Short Message Service (SMS)** allows text messages up to 1260 characters long to be sent and received via your subscriber service. If the phone you are sending the text message to is out of range or turned off, the service provider will store the text message until it can be delivered.
PDA

PDAs (Personal Digital Assistants) are hand-held computer devices that can perform a number of different things, like receiving e-mails, sending messages, writing text (in a word processor). Newer PDAs are also telephone devices, receiving both audio and video. A PDA connects either through a local telephone network, or a local intranet or an internet connection.
The **Wireless Application Protocol** (WAP) is a set of communication standards for accessing on-line services through your mobile phone or PDA. There are many different types of mobile phone and PDA, each one has its own set of features.

**Forums or newsgroups**

A **forum** or **newsgroup** is an online discussion group where people can subscribe (join) a group and post messages to that group. They can take part in discussions with other people in the group and reply to messages posted by other members of the group.

The group can be **closed** (private) which is often used for communication between project groups working on a project together, like a survey or sharing project documents.

An **open** (public) group is often used by people sharing a common interest like sailing, or a particular music band.
A **thread** is just a group of related messages on a particular topic, for example pruning roses, or the latest film, everyone in the group has seen.

**Emoticons** are little graphical pictures that represent how people are feeling, like a smiley face for happy, or a face to say you agree with something.
When you join a group you will need to register your details. This creates an account for you so you can post e-mail messages to the group. Most groups have a joining page, and you will be asked to create a username and your e-mail address. Once you click the join button, you will be sent a password for the group (it will come into your e-mail inbox).

You can then login to your new group. You are given a simple profile containing information about you and how you access the group.

You can change your profile at any time, but common things to change include time zone, password and what other interests you have.

Posting a message to a group forum is easy. Once you have logged into your group you will see an icon or new topic image. Clicking on this will take you to the latest topic for discussion. Replying to a message in the group forum is easy. Click on the reply button icon or image and type your response to the message.
Most groups have two people who look after the group. The **administrator** creates the group and approves members to the group and looks after the group space. You also have a person who **moderates** the group forum. Both of these people look after the group privileges, for example whether to allow you to delete, or edit your **posts** to the group. They can also stop a thread if it does not meet group guidelines or block people from joining the group, or even stop you using the group if you do not follow the group rules.

**Blogs**
A **blog** (‘web log’) is a form of online journal that allows text, images and video clips (and links to websites) to be displayed as a webpage but also allows comments to be posted by readers of the blog. Some blogs ask you to register with the site first before allowing you to post anything. There can be moderation of posts as with forums but that is determined by the owner/administrator.
Example of a blog

Blogs will often contain information about a particular topic like food, politics or local news.

A blog will contain text, images and links to other blogs, forums or other web pages related to the blog topic. There are over 57 million blogs in the world today.

More information about the different types of blogs can be found at: http://en.wikipedia.org/wiki/Blog
Wikis
A **wiki** is a special website that allows visitors to add, remove, edit and change content. You do not need to register to do this. A wiki will link many pages together and often has a wiki engine (software) to allow this process to happen.

The wiki has become a very powerful tool for finding out information about a topic and the best example is wikipedia which is an online encyclopaedia containing millions of pages about different things. Look up the section on wikis at: http://en.wikipedia.org/wiki/Wiki

Skype
Skype is new to communication. It has only been around since 2005, but has become very popular.

Skype users receive calls on their computers dialled by regular phone subscribers to regular phone numbers. Skype permits users to subscribe to numbers in many countries including the UK and USA.
Callers pay only local rates to call a number. Skype supports voicemail, chat, video calling, SMS messaging to mobile phones and skypecast. Multiple users can access Skype. A user will need a headset and a microphone or a Skype handset, which looks very like a mobile phone to talk to other Skype users.

More information about Skype can be found at: http://en.wikipedia.org/wiki/Skype#Skype_chat
Video conferencing

**Video conferencing** provides two-way video transmission between different sites. It could be between two buildings, or even across different countries. Every video conferencing facility allows for call set-up, call coordination and display of participants. It is normally used with a video conferencing screen so you can see the people in each of the video conferencing rooms.

Video conferencing makes use of specialist equipment like a computer, video camera and a network like an intranet or internet connection to connect the two sites together. Video conferencing can save people time, and the expense of travelling between sites for meetings.

A **point-to-point session** is generally between two people in different sites and a **multi-point session** is between several people in different sites. The delay between sites is very little and it is almost like the people were in the same room with you when the call happens.
There are two types of video conferencing system often referred to as VCTs (Video Conferencing Technology):

- a **dedicated system** which is normally set-up in a specific room and contains loud speakers, video screen, video cameras, microphones and an internet connection.

- a **desktop system** which has a specialist hardware board added to allow video conferencing to take place between desktop computers — generally with a webcam (small video device).

For both systems you will need to either have a digital telephone network or connection to an intranet or the internet to allow the data transfer.
Podcasts

A **podcast** is a media file available from the internet to download for play back on a range of portable media players like MP3 players, iPods, etc. It uses web syndication feeds (content supplied by companies for people to listen to eg BBC news podcasts).

A podcast can be a mixture of audio or video or both, which can be downloaded from a website for listening to on your portable device. Podcasts are not done in real time. They are recorded and can be downloaded from the web feed internet site and listened to whenever you wish.
If you subscribe to a web feed site like iTunes, you can get the site to automatically send you podcasts.

More information about podcasts can be found at: http://en.wikipedia.org/wiki/Podcast

**Activity Time:**
You tutor may want you to carry out the Assessment for this unit.