

Glossary of terms

A

acceptance delay – the time after which the computer accepts a key or switch press. Prevents keys being entered at random if a pupil ‘drifts’ across the keyboard, or inadvertently presses a switch. The setting can be changed to meet the needs of the user.

accessibility – must be considered when selecting software or hardware, especially for pupils with severe and complex needs. Barriers to accessibility can be physical, sensory or cognitive.

accessibility options – most operating systems will allow you to make changes to how the system functions, e.g. keyboard repeat, mouse pointer speed. These options can be found in the Control Panel (!Configure on Acorn).

address – a unique combination of letters, numbers and other characters determining the recipient of an email message or the location of a computer on the Internet (e.g. a Web site).

address book – a function of email software, to hold frequently-used email addresses.

adjustable trolley – a movable, height-adjustable trolley for computer and peripherals. By adjusting the height, the screen and access devices can be readily moved to a suitable position for pupils who need to access the computer from a range of different sitting, lying or standing positions.

Asymmetric Digital Subscriber Line (ADSL) – fast digital connection to your telephone exchange. ‘Asymmetric’ because data downloading is faster than uploading.

adventure game – computer-based game allowing the exploration of a scenario or story. The user is encouraged to make decisions based on a set of rules. The outcome depends on decisions made.

alternative keyboard – any keyboard which is not a standard computer keyboard. Examples include overlay keyboards, compact (or mini) keyboards, and expanded keyboards.

animation – display of a sequence of images to give the impression of movement.

anti-virus software – see virus. Software which detects and disables viruses as they enter the computer.

application – see software

archive – collection of computer files held together, e.g. to save space or for long-term storage. May be made into a single compressed file (see compression). Also a (searchable) store of the messages sent to an email forum.

arm support – device to allow a pupil to rest their arm while using the computer. Often useful for those with physical difficulties.

ASCII – acronym for ‘American Standard Code for Information Interchange’. Internationally adopted standard of numerical equivalents for characters representing numbers, letters, punctuation marks, etc. Plain ASCII text can be read by most computers and most text-reading software. Several different encodings are defined, to suit different alphabets (e.g. Cyrillic).

assistive technology – use of technology to give access to learning, recording learning, or more generally to the environment. Important for those who have physical, sensory or cognitive difficulties.

attachment – a file that is attached to an email message. Attachments are used when information other than plain text is to be sent.

augmentative and alternative communication (AAC) – used to describe either electronic or non-electronic aids, which enhance a pupil’s ability to communicate more effectively.

authoring software – programs to aid the creation of multimedia or hypertext documents.

B

back up – to make a duplicate, but separately stored copy of computer data (files or programs) for security or other purposes.

bandwidth – the total rate at which information can be passed down a telecommunications link. Applications such as basic email exchange require lower bandwidth than, for example, audio or video transmission.

bar code – arrangement of vertical lines of varying thickness with spaces in between. The spacing and line thickness represent a numerical code used to enable a computer to identify the item. A scanner is used to read the code.

battery adaptor – connector to allow a switch to be connected to a battery-operated toy or other device.

baud – unit of measurement of data transfer speed ('baud rate'), for example over a telephone line or to a printer. Roughly equivalent to bits per second (bps).

bit – contraction of 'binary digit'. The smallest unit of computer information, equal to either of the digits 0 or 1; called binary because it has only two values, on or off. See also byte.

bitmap (.bmp) – graphic image held by a computer as a screen representation, with each bit relating to the setting of an individual pixel on the screen.

bits per second (bps) – unit of measurement of data transfer speed. For example, the bit rate of widely used modems is in the range 300 to 56000 bps (or 56 kbit/s: higher rates are given in kbit/s).

bookmarks – a function of Web browser software, to hold frequently-accessed Web site addresses. Also known as Favourites or the Hotlist.

boot – to start up a computer. Historically, a very small 'bootstrap' program was run, to load the rest of the operating system.

Braille notebook – portable computer in which the user keys in Braille, the system of representing letters with raised dots to allow reading by touch. The output can be printed either as Braille or in normal text format.

broadband – informally used to mean 'faster than common networks', so the actual meaning depends on what is common at the time. For example, ADSL may currently be considered 'broadband', since it is faster than analogue modems or ISDN.

browser – software used to search and retrieve information from the Web. Netscape, Microsoft Internet Explorer and ANT Fresco are examples of browsers.

bug – error or fault in computer software which causes it to malfunction. The first computer bugs were actually moths caught between the relay contacts of a computer at Harvard.

bulletin board – a space on the Internet where messages can be posted for others to see and comment on.

byte – unit of information, usually equal to eight bits.

C

cache – temporary memory used to access frequently used instructions, thus speeding up processing time. Also denotes temporary storage of Web pages by browser software.

card – circuit board that plugs into a computer to provide a new function, such as sound or video input and output.

case sensitivity – some operating systems make a distinction between upper and lower case letters, even in file names. This is the case with most Web servers, so you must be sure always to use the correct case for letters in a Web URL.

CCTV (closed circuit TV) – A CCTV uses a camera, either hand-held or fixed, to magnify text and display it on a monitor. Often used to enlarge text, images and diagrams for pupils who have visual impairment.

CD writer (compact disc writer) – hardware device which can save information on to a recordable CD. These may be CD-R (record only) or CD-RW (rewritable).

CD-ROM (compact disc read-only memory) – data storage medium; optical disc capable of storing data such as programs, text, still images and sound.

central processing unit (CPU) – generally used to mean the microprocessor, the integrated circuit which is the controlling core of a personal computer, usually situated in the box with the hard disc. Sometimes used to refer to the box and its contents.

chat room – unsupervised areas on the Internet where anyone can join online conversations. Pupils need to be alerted to the dangers of using these rooms and given strategies for safe use.

chip – popular name for an integrated circuit, also called a 'silicon chip' as all the circuitry is etched onto a thin slice of silicon.

clip art – library of pictures stored on disc, CD or Web site. Often copyright free (but check!) and useful for creating materials for pupils.

clipboard – area of computer memory where temporary items are stored when copied or cut, ready for pasting into a document.

clock speed – speed of a microprocessor expressed in megahertz (MHz) related to the number of instructions the computer can carry out each second.

comm port (communications port) – see serial port.

communication aid – used to describe either electronic or non-electronic aids, which enhance a pupil's ability to communicate more effectively.

communication book – structured and personalized book of photos, pictures and symbols used for augmentative and alternative communication

communicator – usually used to refer to a simple message device, delivering either a single message or a few, compared with complex communication aid which can have very many messages stored.

compact keyboard – small keyboard, similar in size to laptop keyboard. Can be useful for those with limited movement.

compatibility – pieces of equipment and / or software which are capable of being used together without special modification are termed compatible.

compress – computer data can usually be compressed to take less space. Compression software is often used before adding an attachment to an email. Examples are *WinZip* (Windows) and *StuffIt* (Macintosh).

computer program – see program.

concept keyboard – particular make of overlay keyboard.

content-free program – software providing a framework and the tools and utilities necessary for users to create their own resources. Examples mentioned in this programme include *SwitchIt! Maker*, *Clicker* and *Powerpoint*. Using content-free software, resources and activities can be made which are meaningful and appropriate to particular pupils' needs.

control panel – set of utilities, usually built into the operating system, that allow control of features such as keyboard repeat, mouse pointer speed, accessibility options etc.

cookie – special data sent from a Web server to be saved by a client machine. Cookies may be used to identify and track users of that site, allowing for personalization. Browsers can be set up to accept or reject cookies.

copy, cut and paste – techniques of duplicating or removing data from one place and inserting it elsewhere. See also clipboard.

crash – sudden failure of software or hardware, often resulting in no response to mouse or keyboard actions.

cursor – also known as the caret or 'I-beam'. Marks the position in a document or text entry where new characters will be inserted.

cyberspace – popular term for the Internet, from William Gibson's novel *Necromancer* (1984).

D

data – in computing terms this means information that is structured and can be processed by a computer.

data capture / collection – acquisition and input of information to a computer using manual or computer input devices.

data compression – see compression

data logging – acquisition of information by a computer through use of sensors to measure and record environmental changes; for example, the changes in temperature of water in a pond over the period of several hours

data projector – screen projector that can be attached to a computer to project the screen display to a large screen.

Data Protection Act 1984 – UK Act of Parliament which sets out rules for the storage of data about individuals. Defined data users must register with the **Data Protection Registrar** and comply with principles of fairness, privacy, accuracy, confidentiality, accessibility and security.

database – structured collection of conceptually related data or data files organized and stored in a computer system. The simplest are tables with a row for each record (a set of related items, such as an individual's name and address) and a column for each field (the categories within each record such as last name, house number, street, town, etc). Hierarchical databases hold their data in tree structures, e.g. one for a school might divide into staff and students at a high level, with individual names at the lowest and divisions like department or class in between. The most powerful databases use a method of storing data which does not restrict the way users can interrogate it, called the Structured Query Language (SQL).

default – computer or software settings as set in the factory or by the software creator.

desktop computer – a personal computer workstation, consisting of a central processing unit, with disc drives for storage, input (keyboard, mouse) devices and output (monitor, loud speakers) devices.

desktop publishing (DTP) – production via a desktop or personal computer of page layouts which combine words, graphics and images with different sizes and styles of type and form the master copies of materials such as newspapers, magazines and leaflets.

dial up – connect to the Internet or another computer over an ordinary telephone line.

digital – The representation of information as discrete digits, or bits. Contrasted with analogue representation.

digital camera – camera which captures and stores images as digital (electronic) information. Images can be stored in memory in the camera or in plug-in cards, or on discs. Images may be transferred to the computer for use in documents or content-free programs. Some printers can print photos directly from memory cards.

digital data network – network specifically designed for the transmission of data in digital form, so that people, computers and other devices can communicate (e.g. ISDN).

digital versatile disc (DVD) – data storage medium, optical disc capable of storing high quality video as well as data such as programs, text, still images and sound (also known as 'digital video disc').

digitized communication aid – a communication aid that enables human speech to be recorded and digitized via a microphone (usually built-in). There is a limit to the number of messages that can be stored.

digitized speech – electronic means of recording, storing and reproducing human speech, similar to using a tape recorder. Digitized speech is increasingly used in electronic communication aids as well as or in place of synthesized speech.

directory – also known as a folder, it is a named collection of files. Used for storing information on a computer so that it can more easily be found later. Directories can sit within other directories, creating in a 'tree' structure.

display resolution – see resolution

domain name system (DNS) – hierarchical naming system used to locate computers on the Internet, matching the number by which one networked computer recognizes another (the IP number) to a name which assigns the computer owner to a domain or category of user. Top-level domains are indicated by the abbreviations at the end of the name.

For countries outside the US, top-level domains are countries (*uk, au, fr*).

Within the US at the top-level and at the second level elsewhere, domain names describe degree-awarding universities (*edu* in the US, *ac* in the UK), commercial organizations (*com, co*), government agencies (*gov*), non-profit and charitable organizations (*org*), etc.

The next level down, and often the first element of the name, is the name or alias of an organization or individual. For example, Inclusive Technology's Internet identity *inclusive.co.uk* is *inclusive* (name of organization) *co* (type of organization) *uk* (country).

DOS (disc operating system) – standard operating system designed to manage files for personal computers, e.g. MS-DOS – Microsoft's DOS for the IBM PC.

dots per inch (dpi) – measure of printer or screen resolution or quality. The higher the dpi the sharper and clearer the image.

download – the process of collecting information from the Internet – information is transferred from a server on the Internet to your computer.

drag – to use a mouse or similar device to move material appearing on one part of the screen to another position. The material to be moved is chosen (selected), and then the mouse is moved, while holding down the button. On releasing the button, the object is released. Often called drag-and-drop.

E

electronic communication aid – used to describe electronic aids, which enhance a pupil's ability to communicate more effectively. Range from simple single-message devices, through to sophisticated multi-level systems.

electronic mail – see email

electronic whiteboard – interactive screen that is linked to a computer. The computer image is projected onto the screen. The user interacts on the screen with a ‘pen’ and the screen sends information back to the computer about the pen’s movements, enabling the user to interact with various software packages.

email (electronic mail) – short for electronic mail – messages that are communicated through the Internet.

email attachment – see attachment

embed – to insert information stored in one format into information in another format, for example a graphic into a text file.

embosser – special type of printer that can produce Braille from a computer.

emulator – hardware or software which enables one type of computer to behave like another.

encryption – conversion of data into a format that cannot be read except with a special decryption program. Used on the Internet for secure transactions.

E-Tran Frame – a transparent square of perspex on which pictures, symbols and words can be mounted for communication via eye pointing.

expanded keyboard – keyboard (usually larger than standard) which may include extra formatting options, a numeric keypad and the ability to customize key-press response times.

expansion card – card which slots into the motherboard of the computer to increase its functionality, e.g. a sound or graphics card.

extension – see file extension

F

favourites – see bookmarks.

fax (facsimile) – transmission of images over the telephone network. Fax messages can be sent direct from a desktop computer fitted with a fax modem, or via a fax gateway.

fax modem – modem which handles faxes as well as normal data transmission.

fibre optics – thin strands of pure glass or polymer used for transmitting light. Applications include the transmission large volumes of data at high speed, and multi-sensory environments.

field – category in a database

file – collection of data held on a computer as one item with one name. A file can be a piece of work created by the user in an application such as a word processor. Each file needs a unique label (file name) in order to be accessed. See also directory.

file extension (file name extension) – suffix following a file name which allows the file type to be recognized by the computer. Common extensions are **.doc** for a word-processed document and **.jpg** for an image.

file server – see server.

file transfer – to copy / move a file from one computer to another.

file transfer protocol (FTP) – file transfer protocol is used to download or upload files between your computer and a server on the Internet. It is commonly used for transferring large files (e.g. software downloads) and for uploading your Web pages to a server.

firewall – means of protecting networked computers from unauthorized access.

floor turtle – programmable device, sometimes called a floor robot; controlled by Logo or Logo-like languages. The turtle can have a pen holder which can be lifted or dropped to trace the turtle’s movements on paper.

floppy disc – small portable data storage medium in which the disc is flexible (as opposed to a hard disc). Currently usually a 3.5-inch disc in a rigid plastic case. See also CD-ROM, hard drive.

foot rest – important for pupils with severe and complex needs to ensure correct and comfortable seating position while using a computer.

forum – An Internet space where people can meet to discuss topics of mutual interest. Messages sent to email forums are automatically sent out to all other members.

font – Set of letters, numerals etc, of one face and style. Each font has a name (e.g. Arial, Sassoon) and can be displayed in different sizes. Some designed specifically for legibility.

framework program – see content-free program.

free-text database – stores its information in normal written form. All words can be searched for individually but often a controlled vocabulary (keywords) is used as well.

freeware – software that can be copied and used without payment to the author.

frequently asked questions (FAQ) – list of the most frequently asked questions and their answers, produced as a reference document for email discussion lists, newsgroups or Web sites, in order to avoid repeating the same questions.

full motion video – moving video with a frame rate of 24 frames per second or more may be considered true ‘full motion’. Slower frame rates may appear jerky.

fuser – see tactile imaging

fuzzy matching – a ‘guess’ by a searching, spelling or predictive word-processing program to achieve a near match to the user’s input, so that phonetic or poor spelling is not a barrier to communication.

G

gateway – device connecting different networks by carrying out protocol conversion between them, i.e. translating the rules of communication of one set of computers to those of another.

GIF – ‘graphics interchange format’ – format commonly used to store digitized images as most popular software can cope with it. See also JPEG.

gigabyte (GB) – 1024 megabytes or 1073741824 bytes.

grammar checker – part of a word processor which scans through text on the screen and highlights any word or group of words where the grammar may need correcting. The user is given the option of ignoring or correcting the text. See also spellchecker

graphical user interface (GUI) – a system using windows, icons, menus and the mouse for most user input / output. See also wimp.

graphics – charts, diagrams, pictures, symbols or animations on a computer screen which may be printed out or saved to disc.

graphics card – circuit board inside the computer that produces the monitor output. In some systems this may be built into the motherboard.

graphics tablet – device that enables the mouse to be replaced by a pen.

H

hard copy – printed (paper) output from a computer as opposed to the ‘soft’ copy stored on the computer.

hard disc – computer storage medium, rigid disc usually made of aluminium, coated with magnetic material and hermetically sealed; fitted internally in a computer.

hardware – physical components of a computer or a communications system, including both mechanical and electronic parts, such as the processor, hard drive, keyboard, screen, cables, mouse and printer. Contrasted with software.

hardware compatibility – computers which can use the same software because they share or can use the same operating system.

head pointer – pointing device used by some pupils with severe physical difficulties to access the computer. Simple ones can be used to press keys. See also optical head pointer.

home page – opening or main page of a Web site of a particular organization or individual.

host – computer acting as an information or communications server; often used for a computer acting as a Web server.

hotlink – see hyperlink

hotlist – see bookmarks

hotspot – means by which ‘point and click’ software can be accessed by devices other than a mouse (usually a switch). Software such as *ClickIt!* or *SAW* can be used to create hotspots over ‘clickable’ points on a screen. A switch or overlay keyboard user can then access the same resources as a mouse user.

housekeeping – organizing and tidying information and software on a computer to keep them manageable and minimize the storage space they occupy.

hyperlink – in a hypertext document (e.g. Web page), an area (e.g. words or parts of images) which can be clicked on to jump between set places in a set of documents.

hypermedia – conceptual term for the use of hypertext links to connect multimedia items.

hypertext – system enabling the non-sequential connection of information, linking one computer file with another. The user can choose to follow the link or to continue using the original file sequentially. Used for the Web. See also hyperlink, hypertext mark-up language.

hypertext mark-up language (html) – computer language used to create hypertext documents such as Web pages. The author using html **marks up** or defines how elements of the text will appear on the Web by inserting **tags** which will be invisible to the ordinary user of that page. The tags are special instructions to the computer, such as to insert a picture or to change text size and style. Tags may also define text or an image as a link to another page (a hyperlink). Word-processing packages can be used to create html documents but there are also many specially designed packages enabling html creation.

hypertext transfer protocol (http) – protocol by which a browser program requests and downloads files from a Web server. See protocol.

I

icon – in a graphical user interface, a small symbol or picture on the computer screen, for example representing a software package or a data file. The user clicks or double-clicks on the icon to start the package or open the file.

information and communications technology (ICT) – application of modern communications and computing technologies to the creation, management and use of information. (also a national curriculum subject)

information super-highway – usually used to mean a broadband network capable of transferring very large amounts of information, including video, still images, audio and text, at high speed between remote users. See also Internet.

information technology (IT) – see information and communications technology.

input device – device which is capable of sending information to a computer system, such as a keyboard, mouse, touch screen, switch, sensor, scanner or microphone.

install – to copy all the files of a software package on to a computer and make any changes needed to existing files so that the software then works. Installation or set-up programs do this for users.

integrated learning system (ILS) – computer-based system with a diagnostic capability that monitors and manages the delivery of curriculum material to students so that they are presented with individual programmes of work.

integrated package – software package, a suite of applications which have a consistent interface and include a word processor, spreadsheet and database, bundled together. Other software may be included, such as graphics and communication modules. Data can be transferred easily between the applications.

Integrated Services Digital Network (ISDN) – a digital connection to the telephone exchange. This allows for shorter dial-up times than analogue phone lines, and higher data transfer rates. See terminal adaptor.

interactive video (IV) – computer linked by software to a video system which allows the user to control a video disc and explore the information on that disc; choices can be made about the order in which the exploration takes place.

interface – equipment or software which enables a user to communicate with the system they are using, for example, a menu or icons on a screen (see graphical user interface). Also any join between items of hardware or software, such as connections with printers or access devices.

Internet – also known as the 'net', the inter-communicating computer networks which host and provide access to the Web, file transfer, email, news and other services.

internet protocol (IP) – set of communication standards which control activity on the Internet. An **IP address** is the number assigned to any computer connected to the Internet, and is the only way in which information sent through the Internet can find its way to that computer. It is a number of the form **A.B.C.D** where each letter represents a number from 0 to 255, e.g. 193.63.56.222. See also domain name system.

internet service provider (ISP) – organization with a direct connection to the Internet acting as an intermediary for other users, providing them with email addresses, access to the Web, and often space on Web servers for home pages etc.

intranet – common name for a local network set up to serve a closed group such as a school. Often it will include a Web server, which contains pertinent information such as school documents, bulletin boards, health and safety information etc.

J

joystick – input device with a stick which can move to control the movement of a pointer on screen. The stick has a press switch which has the same action as the mouse 'select' button.

JPEG – 'Joint Photographic Experts Group', JPEG is a lossy image-compression format which greatly reduces the size of the image file. It is best suited to photographic-type images.

K

kb, kB – kilobit, kilobyte.

kbits/sec – unit of measurement of data transfer speed; 1024 bits per second.

keyboard – typically the primary means of text input for computer users. Most computer keyboards are arranged in the traditional QWERTY layout (see QWERTY). Older PC keyboards connect by a 5-pin DIN plug. Newer models use a PS/2 or USB connection. Specialized types, for example with bigger or smaller keys, or keyguards fitted, are available.

keyboard emulator – device attached to, or software run on, the computer which enables switch users to use standard software. A grid of numbers, letters and symbols represents the keyboard. The user selects required characters by scanning the grid with switches: these characters are sent to the program being used.

keyboard short cuts – The keyboard can be used for most functions on a computer. Short cuts such as **Ctrl+S** may bring up the Save... dialogue box. **Ctrl+P** will print a document. You will find short cuts listed in the menus for programs you use. These short cuts can be extremely useful for pupils with some difficulties, e.g. visual impairment or physical difficulties. Short cuts can be programmed into an overlay for an overlay keyboard, or presented in an on-screen grid for easy access.

keyboard repeat – the rate at which the computer will repeat a key press if you hold the key down. For pupils with severe and complex needs it can often be useful to turn off the keyboard repeat completely, to avoid kkkkkkkkkk, as pupils may hold down a key for a long time. This can be done in the Keyboard Control Panel.

keyboard stickers – small stickers that can be placed on the keys to increase access. Often lower case letters, or of an increased visual contrast.

keyguard – rigid frame placed over a keyboard or overlay keyboard. It is raised above the keys and has holes in it to allow access to the individual keys through the holes. With a keyguard, users with poor fine motor skills may access the keyboard more accurately. An overlay keyguard works in the same way for use with an overlay keyboard.

keypad – input device which has letters, numbers or symbols on it, like a small keyboard. Numeric keypads allow only numbers to be entered.

keyword – particularly associated with 'free-text' databases, an important word within text which is marked to ease retrieval. A search using a keyword will display each individual record containing it.

kilobyte (kB) – unit of measurement of storage capacity; 1024 bytes.

L

laptop computer – portable computer, small enough to carry around and use on a lap.

laser disc – see video disc

link – see hyperlink

liquid crystal display (LCD) – thin flat screen used in portable computers, digital cameras and watches where space is at a premium.

list server – automated email distribution system, one method of supporting discussion groups using email. The list is of email addresses of everyone who has joined the group (known as subscribers). A message posted to the group is sent to the list server which copies the message to every subscriber on its list. Each subscriber finds a copy of all the new messages from the group waiting in their mail. Also known as a 'mailing list'. Many such lists are relevant to and subscribed to by teachers, such as SENCo forum and SENIT.

local area network (LAN) – communications system linking computers within a restricted geographical area such as a building or campus. This also allows computers to share information and resources.

Logo – simple programming language which allows the user to give instructions to a computer in ordinary language, using words and numbers rather than codes. In its simplest form (turtle graphics) it allows the user to control the movements of a screen turtle.

M

macro – often-repeated sequence of actions which can be defined and named by the user of some applications software so that they can set the sequence going in one step by calling the macro up by name. Sometimes a macro can be programmed by example, storing the user's actions as they occur.

mailing list – see list server.

mail server – these are the computers your ISP provides for the transfer of email. When you send an email, your email program will upload the message to your ISP's outgoing email server. This will check the recipient address, and send the message on towards its final destination. When an email is sent to you, it makes its way to your ISP's incoming email server. When you check for new mail, your email software asks the incoming email server if anything new has arrived. If it has, the message is downloaded to your computer.

Mbits/sec – one million bits per second.

megabyte (MB) – 1024 kilobytes or 1048576 bytes.

megahertz (MHz) – see clock speed

memory – Encompasses all the areas used by a computer to store information. Includes the long-term storage area used to hold programs and information files (usually the hard drive). Its meaning is sometimes restricted to the 'random access memory' (RAM), the computer's temporary working store, which can hold very large amounts of data and manipulate it very quickly, but will not retain it when the power is switched off; for that, it must be saved to the hard disc. Some forms of storage are 'read-only' (ROM), with information which has been recorded during manufacture and cannot then be altered or erased, e.g. CD-ROMs.

menu – list of options from which a user can select in order, e.g. start a program, open a file.

MIME – 'multi-purpose internet mail extensions' – messaging standard for email attachments.

mini keyboard – reduced-size keyboard. Useful for those with limited finger movement.

model – a representation of a real or imagined situation governed by certain rules which are managed by a computer program. The rules, or data can be changed by the user and the outcome of the changes viewed on the computer screen.

modem – 'modulator-demodulator'. An interface between a computer and a telephone line, to allow connection to other computers (the Internet). The modem's baud rate determines the maximum speed at which it can transfer data - the faster, the better. Special interfaces are required for connection through digital lines e.g. ISDN or ADSL. See terminal adaptor.

monitor – screen used with a computer, also known as a VDU (visual display unit).

motherboard – main printed circuit board (PCB) in a computer, which holds the principal components. See also central processing unit.

mouse – small, moulded plastic box with clickable buttons on top and a rolling ball or optical sensors underneath, moved by hand across a flat surface to control the screen pointer position. It enables the user to access menus and to select and move words or other objects around the screen. Alternatives to the mouse include touch screens and rollerballs.

MouseKeys – Found in the Control panel, MouseKeys allows you to move the mouse pointer and operate the buttons with the numeric keypad on the right side of the keyboard. This can be useful for pupils who cannot operate the mouse. Mousekeys functions can also be programmed into an overlay or on-screen grid for easy access. The functions may be assigned to separate switches, if a pupil can cognitively and physically cope with five or more switches.

mouse pen – input device shaped like a thick pen and with a ball on the end. It behaves in the same way as a mouse when run over a flat, soft surface.

mouse pointer – see pointer.

MPEG – 'Moving Photographic Experts Group', an international standard for storing digitized video in compressed form.

MS-DOS – see DOS

multimedia – combination of moving images, graphics, text and sound. A multimedia computer is fitted with hardware such as sound and 'accelerated' video cards and a CD-ROM drive, and may include peripherals such as a camera, microphone and scanner.

multimedia software – software that allows the presentation of moving images, graphics, text and sound. Content-free multimedia software allows you to create your own activities using any of these functions.

multi-sensory environment – an area, usually a room, assigned for a range of electronic and non-electronic devices such as lights, sounds, vibrations, etc. Often used for the assessment and teaching of pupils with profound and multiple disabilities.

musical instrument digital interface (midi) – device which allows the interchange of signals between a computer and any musical device fitted with midi such as a music synthesizer.

N

National Grid for Learning (NGFL) – government initiative to connect all schools, colleges and universities to the Internet, and provide them with information and resources.

net – see internet

netiquette – an agreed code of behaviour for using parts of the Internet such as mailing lists, email or newsgroups.

network – electronic communications system linking computers, computer systems and peripherals such as file servers and printers.

newsgroup – a type of electronic forum for discussion groups. Messages sent to a newsgroup are displayed for anyone to see. To subscribe to newsgroups you must have access to a news server. Also known as usenet.

news server – a server computer on the Internet that collects and distributes messages sent to newsgroups.

notebook – the smaller type of laptop computer.

O

object linking or embedding – see embed

on / off-line – When you are online your computer is connected to the Internet. When you are off-line it is not.

online database – remote database which can be accessed over a network or via the Internet.

online service – service accessed remotely via telecommunications links. Often, but not always, an email or database service.

on-screen grid / on-screen keyboard – grid on the computer screen which enables users who have difficulty accessing a conventional keyboard to use standard software (usually by switch input). A grid of numbers, letters and symbols represents the standard keyboard. The user selects the characters required by scanning the device with the switches and the information is sent to the computer.

operating system (OS) – program or set of programs which controls the computer. Different types of computer use different operating systems. E.g. MS-DOS, Windows (95, 98, NT, 2000, ME), RISC OS, MacOS, Linux and BeOS.

optical character recognition (OCR) – a means of converting printed text into computer text files, which may then be edited in a word processor, or 'spoken' through a text to speech engine. First the printed page is scanned into a digitized form (see scanner), then pattern-matching software converts this into text.

optical head pointer – input device which allows the user to control the computer with an optical pointer, usually attached to a headband.

optical mark reader (OMR) – scanner which can detect marks in given places on a sheet, for example, a completed multiple choice test or lottery ticket, and convert them to computer-held data.

overlay – paper placed on an overlay keyboard. Areas depict what will happen if that area is pressed. Images, symbols, words or tactile objects can indicate purpose to the pupil.

overlay keyboard – flat, touch-sensitive membrane on which paper overlays containing words, pictures or objects can be placed. The keyboard is used as a replacement or in accompaniment to the conventional keyboard for users with learning or physical difficulties. The keyboard consists of individual cells, which can be programmed individually or in groups to perform a particular task or display text on the computer screen.

P

package – software suite designed for a particular job, such as word-processing or accounts.

palmtop computer – a pocket-sized computer. The screen (which is usually touch-sensitive) is much smaller than on a laptop, and the keyboard may be replaced by an on-screen keyboard or handwriting recognition.

PC (PCMCIA) card – ‘Portable Computing’ – previously known as PCMCIA – a small, credit-card-sized card, usually for use to expand the capability of a laptop computer, e.g. a modem card or network card. Do not confuse these with desktop PC expansion cards (e.g. ISA or PCI cards) or the Acorn RiscPC PC card.

Pentium – Intel’s successor to the 486 processor. Initially called a P5 and later referred to as a Pentium because it was the fifth in the 80X86 sequence of microprocessors.

peripheral – hardware device which can be plugged into the computer to perform some additional function such as a disc drive, a printer, an overlay keyboard or VDU. In this context, peripherals are usually attached in order to make the computer accessible to learners with severe and complex special educational needs.

Perkins Braille – machine for typing in Braille and producing hard Braille copy.

personal computer (PC) – computer designed for individual users rather than several users at any one time. Usually taken to mean an IBM-compatible machine.

pixel – from ‘picture element’ – the smallest point in a screen image. See also resolution.

plotter – output device which draws on paper or film with pens, usually to produce graphics.

plug-ins – optional additional features which can be added to a software package.

PNG – ‘portable network graphics’ – a graphics file format intended to replace GIF. It has better capabilities for colours and transparency, and uses patent-free software technology.

point and click software – software which only requires the use of a mouse, or other pointing device, for access.

pointer – in a GUI or WIMP system movements of the mouse / mouse alternative are followed on screen by a pointer. This is usually a small arrowhead, but the shape may change to reflect different system activities (e.g. ‘busy’). Some systems allow the user to choose a different pointer, e.g. a larger arrow.

port – a hardware interface between the central processing unit and a peripheral device.

portal – portals are Web sites that aim to provide services such as news, Web directories, and even shopping. Your ISP might have their own portal site.

portable computer – generic term covering all personal computers which are light enough to carry with one hand, such as laptops, notebooks and palmtops.

portable document format (PDF) – a file format invented by Adobe, developed from their postscript printing format. The definition includes efficient image compression. PDF files should look the same whatever machine they are viewed on. The documents you are reading were sent to be printed as PDF.

prediction software – software which anticipates the completion of words as text is entered into the computer (see also fuzzy matching). Useful for those who have difficulty with typing or spelling.

printer – device used to produce hard copy (paper copy) from a computer. Various types are available: a dot matrix printer produces output by firing pins against an inked ribbon, bubble or inkjet printers squirt ink through many tiny holes, and a laser printer works in a similar way to a photocopier, scanning the image onto a rotating drum that then picks up the toner.

procedure – ordered and structured commands to perform a particular task. For example, a Logo procedure for turning two lights on and off in order might be: TURNON 1 WAIT 10 TURNOFF 1 WAIT 10 TURNON 2 WAIT 10 TURNOFF 2.

processor – see central processing unit.

program – This American spelling is the standard term for the set of instructions carried out in sequence by a computer to perform a given task. Large software systems are normally sets of several programs.

programmable toys – toys which will obey a sequence of computer instructions; e.g. floor turtles or Roamer.

programming language – artificial language constructed to enable the user to instruct a computer, creating programs for it to run. Examples of programming languages used in school are Logo and BASIC.

protocol – rules or procedures usually set out in an agreed international standard (e.g., file transfer protocol) governing how communications are handled by a network of computers.

public domain software – freely available and distributable software, also known as freeware. It is free of copyright and should not be confused with shareware.

Q

QWERTY keyboard – standard computer keyboard with keys laid out in the same order as a traditional typewriter. The first six keys in the top left-hand corner spell QWERTY. The keyboard was so arranged to slow typing down because keys on a typewriter would jam if hit in quick succession.

R

RAM – see memory

random access memory – see memory

read-only memory – see memory

real-time video – display of moving pictures on a computer screen as they happen. For example, a television broadcast can also be broadcast on the Internet. Two-way real-time video is used in video conferencing. The recipient can see and hear the sender as they speak and can reply in the same way at the same time.

resolution – clarity and sharpness of pictures and text as they appear on the screen or on paper, measured in dots per inch (dpi) or dot pitch (in mm).

retrieval – ‘calling back’ stored data into the computer’s working memory. Also used for rescuing data which has been erased or corrupted.

robot – mechanical device which can be programmed by the user to follow a sequence of commands.

rollerball – device used to control the cursor. The user moves the ball which in turn moves the pointer on the screen. Selections are made by pressing the buttons on the device. This can be especially suited to pupils who find small hand movements difficult.

ROM – see memory.

root directory – see directory. The top level of the file structure.

router – communications device that chooses the route by which information should travel through a network.

RTF – ‘rich text format’, complex format used to store data produced in word-processing software. It carries particular features of a text; boldening, underlining, italics, styles, colours, sizes, and so on, so that it can be used to transfer data between different word-processing packages without losing that information.

S

scanner – device by which hard-copy pictures and text can be converted into digital form for use on a computer. Small hand-held devices work by rolling the scanner head across the paper. Larger flatbed scanners work rather like a portable photocopying machine. With OCR and a speech synthesizer, it is possible to scan text into the computer and hear it read aloud. It can also be used to read bar codes and convert them into numerical data.

screen magnification – software utility to enlarge the screen, or an area of the screen. Simple utilities may be provided in the Control Panel. Commercial utilities are also available.

screen reader – Software which will ‘read’ areas of the screen, menus etc, outputting synthesized speech. Especially useful for pupils with visual impairments, but requires good cognitive skills and training.

screen resolution – see resolution

screen saver – facility to switch a computer screen off or alter the display if the keyboard or mouse has not been used for a while. This is to prevent the current image from being burnt into the screen if it is left on for an extended period.

screen turtle – in Logo, representation of the floor turtle on a computer screen. The screen turtle can be shaped like an arrow head, a turtle or other user-defined shape. Also described in statutory curriculum documents as a ‘screen image’.

scroll – when a window is not big enough to show all of its contents at once, scroll bars may be provided, by which one may move the displayed up / down or left / right around the document.

SCSI – ‘small computer systems interface’ – an internationally defined standard for connecting fast peripheral devices to a computer.

search engine – software, often found on Web sites, which searches for information on the Web or text-based databases.

sensor – device used to measure environmental changes such as light, temperature and movement. Sensors may be connected to control interfaces or data-logging devices.

serial port – hardware interface (plug) for attaching modems, other computers etc. Also allows devices such as switches or overlay keyboards to communicate with the computer. Sometimes called a **comm** port.

server – a computer permanently connected to the network that provides services to other computers. In the context of the client / server model, a server is the software on a remote computer servicing a client with the resources the client requests. In a local network, a file server holds system software on its hard disc, and is usually the most powerful machine in the system. Network users can access their own files remotely and interchange information with the central store. Other examples are Web, FTP, news, and email servers on the Internet.

shareware – software that is freely available but developers will ask for fees and depend on the user's honesty for payment. Not to be confused with public domain software or freeware.

silicon chip – see chip

simulation – a pre-defined but dynamic model of a situation which allows the user to pretend to do things that might be impractical or dangerous in real life. This could be motor racing at Silverstone or heart surgery. There are also decision-making simulations such as moving house.

single message communicator – simple digitized speech device. Record a voice message. The pupil can then press the device to play back the message.

softbraille – Braille output provided by a computer attachment which uses small raised pins to produce Braille characters.

software – generic term for all computer programs. Software falls into two major types: applications such as spreadsheets or databases, and systems software such as MS-DOS or Windows. In addition, there are utilities or tools. Contrasted with hardware.

sound card – expansion card that can be plugged into a slot in the motherboard of a computer to expand its capabilities for sound input / output. Sometimes this function is integrated into the motherboard.

speech synthesizer – device with accompanying software used with a computer to 'speak' text by selecting elements from stored sounds or by breaking down the text into individual elements (phonemes) which are then produced in the correct sequence. See also augmentative and alternative communication, synthesized speech.

spellchecker – electronic dictionary, usually part of a word-processing application, which scans text on the screen and highlights any word it does not recognize. The writer is given the option to correct, ignore or add the word to the dictionary. The spellchecker can be set to offer alternative spellings to the writer. See also grammar checker.

spreadsheet – computer program which allows words and figures to be entered into individually identifiable cells on a grid format. Cells can be linked by formulae, so that altering numbers in individual cells will produce an alternative set of results. Spreadsheets may be used to model situations whose rules are governed by mathematical relationships such as the management of a budget account.

standard keyboard – see QWERTY keyboard.

sticky keys – utility usually found in the Accessibility Control Panel. Allows keys to be pressed sequentially rather than together. So to type a capital P, the pupil can press Shift followed by p, rather than having to press them at the same time.

surf – popular term for exploring the Web.

switch – a device which can make or break an electrical connection. In the context of ICT and learners with special educational needs it usually refers to an input device which at any time can be either on or off. Where a user's physical movement is impaired, switches may be required to operate the computer. Many switches have been designed to meet the particular needs of disabled people.

switch cap – a clear plastic cap which fits over a switch, allowing an image to be placed on the switch so the pupil can identify the action of the switch

switch interface – a means of connecting switch(es) to the computer; usually a small box. Switch interfaces usually connect to the keyboard socket, mouse socket or serial port on the computer.

switch latch / timer (switch latching box) – a device for setting up how a switch will operate. For example, a single press may turn on a device for a set length of time, or the pupil may press once to turn on and again to turn off.

switch mains adaptor – an adaptor that allows the connection of switch(es) to a mains device, such as a radio or food mixer.

switch mounting – a system of clamps and rods that allows switch(es) to be mounted securely in an appropriate position so that a pupil with physical difficulties can access the switch reliably and comfortably.

switch scanning – method of accessing software using one or two switches. A scanning cursor (usually a coloured box) moves around the display and the switch user has to press the switch when the scan is over the object they want. If the pupil can use two switches, then they can use one switch to control scan movement and the other switch to select. Switch scanning requires complex training and cognitive ability.

symbols – can be used to represent words. There are several electronic symbol libraries available; currently the most commonly used are in the UK are PCS, Rebus, and Makaton (others available include - Bliss and Compic).

synthesized communication aid – a communication aid that uses artificial speech which can be used more flexibly than digitized human speech (see above). Some of the more powerful and expensive communication aids offer both digitized and synthesized speech.

synthesized speech – electronic speech produced by a computer or speech synthesizer from text rather than from a real voice. The vocabulary that can be spoken is not limited to the available memory (as with digitized speech), but the accuracy and clarity of the speech may be affected, as the computer pronounces speech according to a set of rules stored inside the machine. Often the spelling of a word can be adjusted to improve its pronunciation.

systems software – see software

T

tactile imaging – the production of tactile diagrams for students with a visual impairment. There are several ways of constructing tactile images such as fuser and swell paper or vacuum forming.

When using a fuser, a print version is produced on standard paper with clear black outlines or areas and photocopied onto micro-capsule or swell paper. This then passes through the fuser where it is heated; as the black areas absorb more heat than the white areas, they rise and swell to form tactile areas.

Vacuum-formed diagrams use a raised diagram or collage as a template over which plastic is vacuum-formed to produce a more permanent tactile resource. The equipment is often referred to as a Thermoform. It is often used to reproduce complex diagrams which include Braille labels or where multiple copies of Braille texts are required.

tag – formatting code used in hypertext mark-up language (html).

TCP/IP – ‘transmission control protocol / internet protocol’. The rules used by networking software to communicate with other machines on the Internet.

telecommunications – transmission of information over distance using telephone lines, cables, or radio signals to send and receive images, sounds and words.

teletext – a low-bandwidth data transmission system whereby pages are hidden in the unused lines of television pictures. Suitable TV sets can receive these to display screens of information, or subtitles on TV programs to assist people with a hearing impairment.

template – a file which is set up for particular use, e.g. a blank writing document or worksheet, which has been set to the appropriate font, font size, font colour etc, and is saved for future use. A pupil will then load the blank template to start from, but save work under another file name. The template is still there to be used again.

terminal adaptor – interface equipment between a computer and an ISDN line (the equivalent of a modem).

terminator – component at the end of a cable segment, often required for correct operation.

text file – file of plain, unformatted text composed of ASCII characters.

text manipulation program – term embracing software which allows the manipulation, storage, retrieval and printing of words, graphics and images. Also used for programs for language learners where the tutor inputs the text and the computer creates activities including Cloze, gap-filling, re-ordering etc.

TIFF – ‘tagged image file format’, a graphic format developed by Aldus and Microsoft.

toolbar – bar across the top (usually) of a program, giving access to menu items, such as print, save etc. With some software you can configure how many tools are available to the pupil, and introduce more as they are needed.

touch screen – sensitive display screen which enables the computer to react to the touch of a finger or stylus. May be an add-on window for a normal monitor, or built into a special monitor (Touch Monitor).

track pad – touch-sensitive pad used to control the pointer, often found on laptop computers.

tracker ball (or trackball) – see rollerball.

turtle graphics – diagrams drawn by a screen turtle controlled using Logo or a Logo-like program. It is also called ‘turtle geometry’ since it allows the user to explore shape, space and angle of turn.

U

uninstall – use of a program to remove unwanted software from a computer.

upgrade – new version of a piece of software which is made available to registered users of an earlier version at a lower price than is charged to new users. Usually identified by a later version number e.g., 1.1, 1.2, show updates on version 1.0, whereas 2.0 would signify a major upgrade.

upload – the process of sending files from your computer to a server computer on the Internet. If you write pages for a Web site, you have to upload them to the Web server, for them to be seen by other Web users. The opposite of download.

URL (Uniform Resource Locator) – a unique address for any file on a server on the Internet. URLs starting with ‘http://’ specify a Web server, and the page you want to view; the ICTS Programme URL, for instance, is:

<http://www.inclusive.net> See also domain name system.

USB – ‘universal serial bus’ – standard for connecting peripherals to personal computers simply and quickly. Transfer speeds are much higher than with the older RS232 serial standard.

usenet – see newsgroup.

user group – people who get together to discuss a particular product or technology. Each of the main computer manufacturers has one or more associated user groups.

user profile – in Windows, a user profile can hold particular keyboard, mouse and display settings, and what appears in the **Start** menu and on the desktop. When the pupil ‘logs on’ with his or her name, the personalized settings are loaded and the desktop only shows the required short cuts and folders.

utility – software, usually small, which is designed to perform a single routine task, either on whole files, such as copying, deleting and sorting files, or as an extra add-on which extends the capacity of an applications package.

V

VDU – see monitor

video disc – also known as ‘laser disc’, analogue storage medium, a large disc like a long-playing record. Not to be confused with ‘digital video disc’. See digital versatile disc.

virtual reality (VR) – simulation of an environment by presentation of three-dimensional and moving images and an appropriate soundtrack, giving the user the impression of being able to move around within the environment.

virus – mischievous or destructive software transferred covertly to files and applications, often via the Internet (e.g. email attachments) or with other files on a disc. Some can disable a computer or network once activated and must, be removed using anti-virus software. There are, however, many hoax virus warnings and users should not pass on such warnings unless they are sure of their reliability.

VOCA – Voice output communication aid. May use digitized or synthesized speech, with the most sophisticated devices using both.

voice activated software (VAS) – software allowing you to control the computer through voice. Commands are spoken and writing can be ‘dictated’. Relatively new way of controlling a computer with potential for pupils with physical, sensory or literacy difficulties.

voice recognition system – see voice activated software.

W

WAN – see wide area network.

Web address – see URL, address.

Web browser – see browser.

Web conferencing – a Web site that enables you to participate in an online discussion on particular topics.

Web page – a single page on a Web site. Web pages are written in hypertext markup language (html), so that they can include graphics and hyperlinks to other pages.

Web ring – a group of Web sites with similar themes linked together.

Web server – a server computer on the Internet or an intranet, holding Web pages.

Web site – area on a server linked to the Internet which is devoted to one organization’s or individual’s Web pages.

wide area network – in contrast to a local area network (which links computers at the same site), a network which links computers over a large geographical area, including telecommunication links such as satellites.

wild card – symbol used in command or search instructions to stand for a range of characters. Thus, a question mark is used to stand for ‘any single character’, while an asterisk is used to mean any character or group of characters or none.

WIMP – ‘windows icons menus pointer’, components that make up a graphical interface system such as Windows. WIMPs enable a computer to be controlled without typing in complex commands, by using a pointing device (mouse) to move the pointer (arrow) around the screen and to click on pictures (icons) or items in menus which run and control software applications.

Windows – the name for Microsoft’s version of a graphical user interface. Since Windows 95 this has included the underlying operating system as well.

wizard – on-screen step-by-step guide that helps a user perform a particular task, e.g. installing a program.

word bank – a vocabulary list to support writing, usually on screen. The pupil can click on a word to enter it into a writing document. Clicking with the right button will usually speak the word. Word banks can also be presented on an overlay keyboard.

word processor – software originally devoted to the creation, editing, formatting, storage, revision and printing of text, but currently often including the capacity to include graphs, spreadsheets, and photographs, and to produce sophisticated page layouts.

world wide web (WWW or the Web) – a world-wide collection of server computers holding hyperlinked documents, connected through the Internet, accessed with a Web browser such as Microsoft Internet Explorer, Netscape or Opera.

World Wide Web Consortium (W3C) – international non-profit organization devoted to developing the potential of the Web. Activities include setting standards and common frameworks in this rapidly evolving field, including an accessibility initiative.

wrist rest – a soft pad, placed in front of the keyboard and used to rest the wrists when typing.

write protect – to protect a disc or file so that its contents cannot normally be altered or erased, usually by moving a tab on the disc casing, or amending the file’s properties.

WWW – see world wide web

WYSIWYG – ‘what you see is what you get’ – accurate representation on the screen of the appearance of the final output.

X

Y

Z

zip – a compression format used to archive and reduce the storage space occupied by files.

zip disc – a high capacity disc, capable of storing 100Mb (or 250Mb) of information on sturdy pocket-sized discs.