









# TEESEP

# Training, Entrepreneurship, Employment and Social Inclusion for Ex-Prisoners

KA210-ADU-27B48F6D

(Erasmus+ Small-scale partnerships in adult education)

**Computer Use and Digitalization** 

Introduction







# Introduction

Digitization is the process of converting elements such as documents, texts, images and files of any format, from analog to digital format and entering them into the computer, so that they can be stored and processed by the user.

The digitization of documents is now an imperative in many organizations, companies and libraries in order for those interested to have easy access to the archives and at the same time to save space. Also, the digitization of important historical or other forms of documents helps to easily access them remotely, protecting them from deterioration or destruction.

Among the advantages of digitization are the following:

- Saving on paper and ink, because archiving is done digitally, so less waste is produced
- Easier transfer of digitized documents electronically, via the internet to any part of the world in zero time. The easiest way to search and locate specific information contained in a pile of papers

In addition to advantages, digitization has some disadvantages

- Some of the users, especially older ones, are reluctant to use digital search or lack the basic knowledge on how to use it
- During digitization, due to human error, files may be lost
- Transferring files from analog to digital format takes time
- Digital files are at greater risk of being put into malicious use than analog files

Despite the advantages and disadvantages of digitization, it is becoming increasingly important for businesses to organize the very large amount of documents (printed or stored electronically) they have and to be able to easily retrieve the information they need

Digitization and electronic archiving allow one-click access.

Digitization is done with machines - systems for scanning documents or images and storing them in such a way that their search at any time is easy and fast.







# **1.2 Digitization Process**

Action 1. Collection of all files to be digitized (texts and images) in order to determine:

- The volume of files -
- Their type -
- Their peculiarities

Action 2. Preparation of the files and their classification (chronologically, thematically, etc.), so that the actual equipment needs can be determined.

Action 3. Supply and installation of appropriate equipment (hardware and software).

Action 4. Recording the real digitization needs, digitizing samples and defining the special categories (documents-images).

Action 5. Scan documents and images.

Action 6. Process scanned documents and turn them into searchable images.

Action 7. Data entry.

Action 8. Archiving scanned files: Use **Captoria DM** system or other suitable for each case.



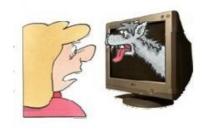




1.3 Prerequisite Basic Knowledge about the Operation and Use of Computers

# Get\_Familiar

# Computer system, software, hardware, operating systems



Many people think that they are scared of computers because they think they are unfamiliar with them. That is not true. Every one of us is being exposed to computers and their services at least for the last twenty years. Microwave ovens, automatic washing machines, mobile phones, TV sets, dishwashers, digital washes, hifi sets and cars are just some examples of our everyday use of computers.

However, just because computers have been around for a while it does not mean that everyone knows how to use them. It is not usual to feel a bit of fear the first time you sit down in front of that intimidating monitor and keyboard. Which keys should you press? What do they mean by double-clicking the mouse? Moreover, what are all those little pictures on screen?

As foreign as all this might seem at first, computers really are not that hard to understand or to use. You have to learn a few basic concepts, of course, and it helps to understand exactly what part of the system does what. However, once you get the hang of things, computers are easy to use.

You can use your computer for various purposes. Many people use their home computers for work related purposes. You can bring your work home from the office and finish it on your home computer at night or weekends. Alternatively, if you work at home, you can use your computer pretty much to run your small business – you can use it to do everything from typing memos and reports to generating invoices and setting budgets.

Not only you can use your computer to play some interesting games, you can also use it to track your favourite hobby, create interesting crafts projects, print pictures from your latest family vacation, listen to your favourite music, and watch your favourite videos. In fact, with the right software and hardware, you can even use your computer to edit movies you take with your video camera.

A lot of people think that if they press the wrong key or click the wrong button they will break something or will have to call in an expensive repairperson to put things right. This really is not true. Yes, it is possible to break something if you drop it, but in terms of breaking your system through normal use, it just does not happen that often. It is possible to make mistakes, of course.







You can click the wrong button and accidentally delete a file you did not want to delete or turn off your system and lose a document you forgot to save. You can even take inadequate security precautions and find your system infected by a computer virus. However, in terms of doing serious harm just by clicking your mouse, it is unlikely. So, do not be afraid of the computer. It is a tool, just like a hammer, a blender or a camera. After you learn how to use it, it can be a very useful tool.

## Computer system, software, hardware, operating systems

Computer hardware is those things you can touch – the system unit and everything connected to it, the monitor, keyboard, mouse and printer. Computer software on the other hand is something you cannot touch, because it is nothing more than a bunch of electronic bits and bytes. These bits and bytes, however, combine into computer programs - sometimes called applications – that provide specific functionality of your system.



There are a lot of different pieces and parts that make up a typical computer system. No computer system is identical with the rest; since you can always add new components to your system – or disconnect other pieces, you do not have any use for them. The basic material elements that you will find in all computers are the **system unit**, **the monitor**, **the keyboard**, **the mouse** and **the speakers**. Of course, one can add many items to the personal computer system, including printers, scanners, computer video cameras, joysticks and external hard disks. You can even add the appropriate devices to connect several computers together in a network.

An **operating system** is, as the name implies, a program that makes the system operates. It is the gateway to the hardware part of the system. The operating system allows your application software to interface with your computer hardware. When you want to print a document from word processor, the software works with the operating system to send the document to the printer. Most computers today use the operating system called Windows. This operation system has been around for more than twenty years and is published by Microsoft Corporation.







However, Windows is not the only operating system around. Computers manufactured by the company Apple Computers use different operating system, called Mac OS. Then there is Linux, which is compatible with most computers sold today, but used primarily by technical types of people.



### The system unit



It is the most important piece of hardware in your computer system. The big box houses the disk drives and many other components. Most system units stand straight up like a kind of a tower – and are in fact called either computer tower or mini-tower depending on the size.

The back of the system unit typically is covered with all

types of connectors. This is because all the other parts of your computer system connect to your system unit and they all have to have a place to plug in. If you open the case of the system unit, you see all sorts of computer chips and circuit boards. The big board located at the base of the computer is called the motherboard because it is the mother for the microprocessor and memory chips, as well as for the other internal components that enable your system to function.

The **microprocessor** is the brain inside the system. It processes all the instructions necessary for the computer to perform its duties. The more powerful the microprocessor, the faster and more efficiently the system runs. Before a computer can, process any instructions you give it, your instructions must be stored somewhere, in preparation for access by the microprocessor. These instructions are temporarily held in the computer's **random access memory** (RAM). All computers have some amount of memory measured in terms of bytes. One byte is approximately one character in a word processing document.

Another important physical component inside the system unit is the hard disk drive. The hard disk permanently stores all your important data. Before data can be stored on any disk, that disk must first be formatted. A disk that has not been formatted cannot accept any data. Of course, when you buy a computer, the hard disk is already formatted for you.

Not all the storage on the computer is inside the system unit. Most computers have a front accessible CD-ROM drive, install CD-based software programs and copy data from computer hard disk to a blank CD-ROM disk. Beyond is the newer DVD medium that can contain up to 4.7GB of data, is usually read-only and can read CD-ROMs.







# The monitor



To operate a computer would be difficult if you did not constantly receive visual feedback showing what your machine is doing. Your computer's monitor provides this vital function.

The traditional CRT monitor is a lot like a little television set. The microprocessor electronically transmits words and pictures (text and graphics, in computer lingo) to the monitor, in some approximation of how these visuals would appear on paper. You look at the monitor and respond according to what you see on screen. The preferred type of monitor in use today is LCD monitor, which provides a flat screen display that saves a bit of desk space. Even better some LCD monitors come with a widescreen display that has the same 16:9 (or 16:10) aspect ratio used to display widescreen movies – which makes them ideal for viewing or editing movies on your PC.

Neither CRT nor LCD monitors generate the images they display. Instead, a graphic card installed inside your system unit electronically crafts screen images. To work correctly, both graphic card and monitor must match together to display images of the same resolution. Resolution refers to the size of the images that can be displayed on screen and it is measured in pixels. A pixel is a single dot on your screen; a full picture is composed of thousands pixels. The higher the resolution, the sharper the resolution and this lets you display more (smaller) elements on screen.

#### The keyboard

Computers receive data by reading them from disk, accepting them electronically over a modem or receiving input directly from you, the user. You provide your input by way of what is called, in general, an input device; the most common input device you use to talk to your computer is the **keyboard**.



A computer keyboard looks and functions just like a typewriter keyboard except that computer keyboards have a few more keys. Some of these keys enable you to move around within a program or file. Other keys provide access to special program features. When you press a key on your keyboard, it sends an electronic signal to the system unit that tells your machine what you want it to do.

Most keyboards that come with new computer hook up via a cable to the back of the system unit. However, some manufacturers make wireless keyboards that connect to the system unit via radio signals – thus eliminating one cable from the back of the system.







The mouse



It is a funny name but a necessary device. It is a small handled gadget. Most mice consist of an oblong case with a roller underneath and two or three buttons on top. When you move the mouse along a desktop, an on-screen pointer (called a cursor) moves in response.

When you click (press and release) a mouse button, this motion initiates an action in your program.

Mice come in all shapes. Some have wires and some are wireless. Some are relatively oval, and others are all curvy to better fit in the palm of your hand. Some have typical roller ball underneath and others use an optical sensor to determine where and how much you are rolling. Some even have extra buttons that can be programmed for specific functions or a scroll wheel you can use to scroll through long documents or web pages.

The left button is used for operations like a choice of objects (with a single click), a double click can put an application in operation, or you can close a file. The right button accesses a pull down menu. The central button is applied in some applications only.

#### The printer

For permanent records of your work, you must add a printer to your system. Printers create hard copy output from computer programs. The two main types of printers today are laser and inkjet printers. Laser printers work much like machines, applying toner to paper by using a small laser. Inkjet printers, on the other hand, shoot jets of



ink to the paper's surface to create the printed image. Inkjet printers are typically a little lower priced than laser printers, although the price difference is shrinking.

You can also choose from black and white or colour printers. Black and white printers are faster than colour printers, which on the other hand are essential if you want to print pictures taken from a digital camera.

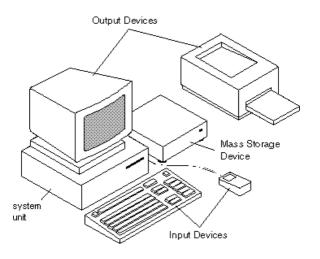






#### **Practice:**

- 1. Connect all the parts of your computer to the system unit.
- 2. Open the CD-ROM drive and insert a CD with music.
- 3. Press the button to put inside the CD.
- 4. Turn on the speaker system and increase the volume to listen to the music.



# **Basic Functions**

# Turning computer on and off

It is important that you turn on things in the proper order. Follow these steps:

- 1. Turn on your monitor.
- 2. Turn on your speaker system – but make sure the speaker volume knob is turned down (toward the left).



3. Turn on any other system components that are connected to your system unit such as your printer, scanner,









Training, Entrepreneurship, Employment and Social Inclusion for Ex-Prisoners KA210-ADU-27B48F6D (Small-scale partnerships in adult education) and external modem. (If your computer is connected to an Ethernet network, make sure that the network router is turned on.)



4. Turn on your system unit.

Note: Your system unit is the last thing you turn on. That is because when it switches on, it has to sense the other components of your system - which it can do only if the other components are plugged in and turned on.

When you want to turn off your computer, you do it through Windows. It is the recommended procedure and you should always choose this way to turn off the computer. To shut down Windows and turn off the computer, follow these steps:

Click the Start button to display the Start menu. 1.



2. Click the right arrow next to the Power button at the lower-right corner of the menu; then select Shut Down.

3. Manually turn off your monitor, printer and other peripherals.









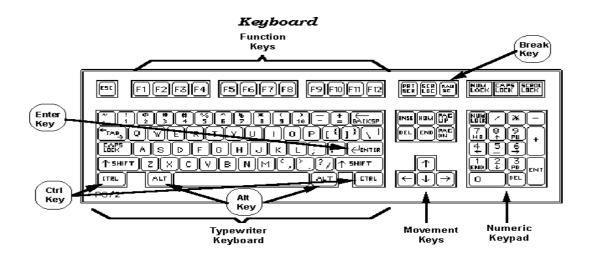
#### Use of the mouse

Some important operations performed with the mouse are pointing and clicking, double clicking, dragging and dropping and right clicking. You simply move the mouse so that the cursor is pointing to the object you want to select and then click the left mouse button once. This is an effective way to select menu items, directories and files. Double-clicking on an item is



needed on the other hand to activate an operation, for instance to launch a programme or open a file folder. This involves pointing at something on screen with the cursor and then clicking the left mouse button twice in rapid succession. When you select an item and then click the right mouse button, you will often see a pop-up menu. This menu, when available, contains commands that directly relate to the selected object. For example, if you right-click a file icon, you will see commands related to that file - copy, move, delete and so on.

### Use of the keyboard



The **keyboard** is the main peripheral unit of entering data in the computer. In the centre of the keyboard, there are keys that produce letters and numbers. On the upper part, there are some additional keys that perform special functions (F1, F2, F3, ....F12).



## Function Keys







TÜRKİYE ULUSAL AJANS

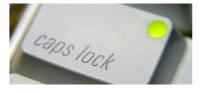
On the right part, there is the numerical keyboard.



| Esc F1 F2 F3 F4 F5 F6 F7               | · F8 F9 F10 F11 F12                     |
|--|---|
| ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;; | ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( |
| Capillot A 5 0 PRESS SH                |   |
|  |   |

If you want to use a letter in capital, you press and hold *"Shift"* and then press just once the letter you want in capital.

If you want to write many capital letters one after the other then press **"Caps Lock"**.



The basic keys of the keyboard are Enter, Alt, control,

#### Esc,



Insert,



Delete



and **break**. These perform various actions like inserting or deleting data from a specific location, cancelling of an operation or closing of a programme in use, asking for help etc.



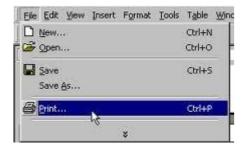




#### Use of the printer

To print a file:

- 1. Select the file by clicking on it.
- 2. From **File** menu select **Print**.





3. The printer's icon will appear down on the right of the screen, next to time and when printing is ready Windows will send the information on the printer, whose operation light will start blinking.

| Print                                      |                                | 19 X                        |
|--|--------------------------------|-----------------------------|
| Printer<br>Name: Drimark.Os<br>Comment:    | etra 5 1650                    | Properties Print to file    |
| C Sides:                                   | ngrit silde 🖉 🖉 👘 👘 👘          | Copies<br>Number of copies: |
| Print ghat:<br>Sildes <u>*</u>             | andress<br>Case of control of  |                             |
| 년 Grayscale<br>F Pige black and white<br>F | Scale to (it paper Frage sides | OK Cancel                   |

To see the files you have sent for printing and other information concerning printing doubleclick on the printer's icon down on the right or choose **Start-Settings-Printers** and open the window for printing management by doubleclicking on it.

| •                      |
|------------------------|
| •                      |
| Control Panel          |
| Network Connections    |
| Printers and Faxes     |
| Taskbar and Start Menu |
|                        |
|                        |
|                        |

Then a window appears with all information on the files that are sent on the printer and their

current status. To cancel a printing job click on it on the list print preview and press **DEL** on the keyboard.







| Printer Document View Help |                |       |       |        |                  |
|----------------------------|----------------|-------|-------|--------|------------------|
| Document Name              | Status         | Owner | Pages | Size   | Submitted        |
| Printing - Google Search   | Error - Paused | matt  | 2     | 109 KB | 4:43:25 PM 19/09 |
| Springframework.org        |                | matt  | 5     | 247 KB | 4:43:40 PM 19/09 |
| Mcrosoft Corporation       |                | matt  | 1     | 220 KB | 4:43:59 PM 19/09 |
| c                          |                |       |       |        | 8                |

#### Scanner

An image scanner—often abbreviated to just scanner—is a device that optically scans images, printed text, handwriting or an object and converts it to a digital image. Variations of the scanner commonly used are:

Desktop flatbed scanner where the document is placed on a glass window for scanning.

Hand-held scanners, where the device is moved by hand, have evolved from text scanning "wands" to 3D scanners. Mechanically driven scanners that move the document are typically used for large-format documents, where a flatbed design would be impractical.

Modern scanners typically use a charge-coupled device (CCD) or a contact image sensor (CIS) as the image sensor, whereas drum scanners, developed earlier and still used for the highest possible image quality, use a photomultiplier tube (PMT) as the image sensor.

A rotary scanner, used for high-speed document scanning, is a type of drum scanner that uses a CCD array instead of a photomultiplier.

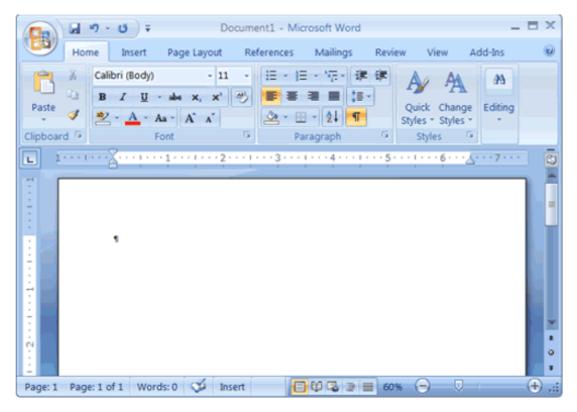
Non-contact planetary scanners essentially photograph delicate books and documents. All these scanners produce two-dimensional images of subjects that are usually flat, but sometimes solid; 3D scanners produce information on the three-dimensional structure of solid objects.







#### Working with Word



#### The MSWord program

Computers always come with a bunch of programs preinstalled on their hard disks. Which particular programs are preinstalled on the computer depends on what sort of arrangements the computer manufacturer made with the software dealers. Many computer manufacturers preinstall some sort of software "*suite*", which is basically a bundle of useful productivity programs. For many users, this suite of programs will be all they need to perform basic computer tasks such as letter writing and number crunching.

The most common software bundle installed on new computer systems is Microsoft Works, which includes a variety of different functions – word processor, spreadsheets etc. Alternatively, some higher priced computers have Microsoft Office installed, which is a more fully featured suite than Microsoft Works.

When you want to write a letter, fire off a quick memo, create a report or create a newsletter, you use the software program called word processor. For more computer users Microsoft Word is the preferred word processing program.







Anything you create with Word is called a document. A document is nothing more than a computer file that can be copied, moved and deleted - or edited, from within Word. Any new word document you create is based on what is called a template. A **template** combines selected styles and document settings – and, in some cases, prewritten text or calculated fields.

To open a previously created document in Word 2007, click the office button and select **Open**; in Word 2003, select **File - Open**. When the **Open** dialogue box appears, navigate to and select the file you want to open; then click the **Open** button. Every document you make and you want to keep, must be saved in a file. The first time you save a file you have to specify a filename and location. When you make additional changes to a document, you must save those changes.

You enter text in a word document at the insertion point, which appears on screen as a blinking cursor. When you start typing on your keyboard, the new text is added at the insertion point. You move the insertion point with your mouse by clicking on a new position in your text. You move the insertion point with your keyboard by using your keyboard's arrow keys.

| W | Do   | cumen         | t1 - M       | icrosof | t Word         |
|---|------|---------------|--------------|---------|----------------|
| 1 | File | <u>E</u> dit  | <u>V</u> iew | Insert  | F <u>o</u> rma |
|   |      | <u>N</u> ew   |              |         |                |
| Ē | 2    | Open          |              | Ctrl    | +0             |
|   |      | ⊆lose         |              |         |                |
|   |      | <u>S</u> ave  |              | Ctr     | l+s            |
|   |      | Save <u>A</u> | s            |         |                |

After you have entered a text, it is time to edit. With Word you can delete, cut, copy or paste text – or graphics – to and from anywhere in your document, or between documents. Before you can edit text, though, you have to select the text to edit. The easiest way to select text is with your mouse; just hold down your mouse button and drag the cursor over the text you want to select. You also can select text using your keyboard; example, Shift+Left arrow selects one character to the left; Shift+End select all text to the end of the current line.









Any text you select appears as white text against a black highlight. After you have selected a block of text, you can then edit it in a number of ways:

| Delete Del |                      |
|------------|----------------------|
| Сору       | Ctrl+Ins or Ctrl+C   |
| Cut        | Shift+Del or Ctrl+X  |
| Paste      | Shift +Ins or Ctrl+V |

| 5                              | Undo               | Ctrl+Z     |
|--------------------------------|--------------------|------------|
| CH                             | Redo               | Ctrl+Y     |
| ж                              | Cut                | Ctrl+X     |
|                                | Copy               | Ctrl+C     |
| ß                              | Paste              | Ctrl+V     |
| X Delete<br>Select <u>A</u> ll | Delete             | De         |
|                                | Select <u>A</u> ll | Ctrl+A     |
|                                | Eind               | Ctrl+F     |
|                                | Find Next          | F3         |
|                                | Find Previous      | Shift+F3   |
|                                | Replace            | Ctrl+H     |
|                                | Go To Page         | Ctrl+G     |
|                                | Insert Page Break  | Ctrl+Enter |

After the text is entered and edited, you can use Word's numerous formatting options to develop the document. It is easiest to edit text when you are working in print layout view because this displays your document as it will look when printed. To switch this view, pull down

the view **Menu** and select **Print Layout**. To form a block of text, highlight the text and then click the desired format button.

Word has an automatic spell checking. When you misspell a word, a red line is displayed under the misspelling. This means that there is a spelling error. When you see the spelling error position the cursor on top of the misspelled word and right-click your mouse. Word now displays a pop-up menu with its suggestions for spelling corrections. You can choose a replacement word from the list, or return to your document and manually change the misspelling. Sometimes Word meets a word it does not recognize, even though the word is spelled correctly. In these instances, you can add the new word to Word's spelling dictionary by right clicking the word and selecting **Add** from the pop-up menu.

When you have finished editing your document, you can instruct Word to send a copy to your printer. It is a good idea however to preview the printed document on screen before you print it so you can make any last minute changes without wasting a lot of paper. The fastest way to print your document is with Word's quick print option. You activate a fast print by clicking the **Office** button and selecting **Print**, **Quick Print**. When you do a fast print of your document, you send your document directly to your default printer. This bypasses the print dialogue box and all other configuration options.

Sometimes fast printing is not the best way to print. For example, you might want to print multiple copies, or print to a different (non-default) printer. For these and similar situations, you need to use Word's print dialog box. You open the print dialog by clicking the **Office** button and selecting **Print**, **Print**. After you have the print dialogue box displayed, you can choose any of a number of options specific to this particular print job. After you have made your choices, click the **OK** button to start printing.







# GLOSSARY

#### Acrobat

Acrobat is a program from Adobe that lets you capture a document and then view it in its original format and appearance. Acrobat is ideal for making documents or brochures that were designed for the print medium viewable electronically and capable of being shared with others on the Internet. To view an Acrobat document, which is called a Portable Document Format (PDF) file, you need Acrobat Reader. The Reader is free and can be downloaded from Adobe. You can use it as a standalone reader or as a <u>plug-in</u> in a Web browser.

#### Access

Access is simply being able to get to what you need. Data access is being able to get to (usually having permission to use) particular data on a computer. Web access means having a connection to the World Wide Web through an <u>access provider</u> or an <u>online service</u> <u>provider</u> such as America Online. For data access, access is usually specified as read-only access and read/write access.

#### Algorithm

The term algorithm (pronounced AL-go-rith-um) is a procedure or formula for solving a problem. The word derives from the name of the mathematician, Mohammed ibn-Musa al-Khwarizmi, who was part of the royal court in Baghdad and who lived from about 780 to 850. Al-Khwarizmi's work is the likely source for the word *algebra* as well. A computer <u>program</u> can be viewed as an elaborate algorithm. In mathematics and computer science, an algorithm usually means a small procedure that solves a recurrent problem.

#### Browser

A program used to browse files. A web browser, browses internet files. Both, Netscape Navigator, and Internet Explorer are web browsers.

#### CD-Rom

Another acronym. This one stands for Compact Disk-Read Only Memory. CD-ROM disks are becoming the standard for delivering programs from the software developer to the computer user.







#### Compression

Compression is the reduction in size of data in order to save space or transmission time. For data transmission, compression can be performed on just the data content or on the entire transmission unit (including *header* data) depending on a number of factors. This kind of compression can reduce a text file to 50% of its original size. Compression is performed by a program that uses a formula or <u>algorithm</u> to determine how to compress or decompress data.

#### Computer

A computer is a device that accepts <u>information</u> (in the form of <u>digitalized data</u>) and manipulates it for some result based on a <u>program</u> or sequence of instructions on how the data is to be processed. Complex computers also include the means for storing data (including the program, which is also a form of data) for some necessary duration. A program may be invariable and built into the computer (and called logic circuitry as it is on <u>microprocessor</u>s) or different programs may be provided to the computer (loaded into its storage and then started by an administrator or user).

#### Data

Computer food. Data can be numbers, letters, symbols, mathematical expressions, mouse clicks, or button presses. The CPU translates all this activity to series of zeroes and ones and then performs magic.

#### Database

A collection of data. A filing system capable of accepting data. Normally referred to as a well organized, easily accessible, computer filing system, which contains a collection of information. A database can also be a file cabinet, or any other item that stores data.

#### Drivers

Drivers are software packages that are needed to run certain peripheral devices. Printers, monitors, scanners, and network cards all require software drivers so that the computer knows how to communicate and control the device.







#### E-commerce

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet, especially the World Wide Web. In practice, this term and a newer term, <u>e-business</u>, are often used interchangably. For online retail selling, the term <u>e-tailing</u> is sometimes used.

#### E-mail: Electronic Mail

The electronic transmission of messages over communication networks, like the internet.

#### Excel

Excel is a <u>spreadsheet</u> program from Microsoft, a component of its Office product group for business applications. In common with similar products, such as Lotus 1-2-3 and Corel's QuattroPro, Excel is an automated version of the paper-based spreadsheet that makes it easier to manipulate, process, and view the data. Although Lotus 1-2-3 was reportedly the first spreadsheet to introduce cell names and macros, Excel implemented a graphical user interface and the ability to point and click using a mouse.

#### Flash

A popular authoring software developed by Macromedia, is used to create <u>vector graphics</u>based animation programs with full-screen navigation interfaces, graphic illustrations, and simple interactivity in an antialiased, resizable file format that is small enough to stream across a normal modem connection. The software is ubiquitous on the Web, both because of its speed (vector-based animations, which can adapt to different display sizes and resolutions, play as they download) and for the smooth way it renders graphics. Flash files, unlike animated but rasterized <u>GIF</u> and <u>JPEG</u>, are compact, efficient, and designed for optimized delivery.

#### GIF

The GIF (the original and preferred pronunciation is DJIF; it stands for Graphics Interchange Format) is one of the two most common file <u>formats</u> for graphic images on the World Wide Web. The other is the <u>JPEG</u>.







#### JPEG

JPEG (Joint Photographic Experts Group) is an <u>ISO/IEC</u> group of experts that develops and maintains standards for a suite of <u>compression algorithms</u> for computer image files.

#### Hard Disc Drive

Hard Disk Drive (HDD): This is the internal magnetic storage device housed inside the computer case. These come in a variety of sizes, measured in how many bits of information they can contain. When you purchase a computer, get as large a Hard Drive as you can afford. The standard in 1998 was between 4GB and 8GB. The Hard Disk Drive is often referred to as the "C:" drive.

#### Hardware

Physical items. Items that you can see and touch. Disks, keyboards, monitors, chips, computers, wires, etc., are all hardware items.

#### Internet

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers).

#### Internet explorer

Internet Explorer (IE) -- sometimes referred to as Microsoft Internet Explorer (MSIE) -- is the most widely used World Wide Web <u>browser</u>. It comes with the Microsoft Windows operating system and can also be downloaded from Microsoft's Web site. The IE browser competes with an earlier browser, <u>Netscape</u>, now owned by AOL.

#### ISO

ISO, founded in 1947, is a worldwide federation of national standards bodies from some 100 countries, one from each country. Among the standards it fosters is Open Systems Interconnection (<u>OSI</u>), a universal reference model for communication protocols. Many countries have national standards organizations such as the American National Standards Institute (<u>ANSI</u>) that participate in and contribute to ISO standards making. According to ISO,







"ISO" is not an abbreviation. It is a word, derived from the Greek *isos*, meaning "equal", which is the root for the prefix "iso-" that occurs in a host of terms, such as "isometric" (of equal measure or dimensions) and "isonomy" (equality of laws, or of people before the law). The name ISO is used around the world to denote the organization, thus avoiding the assortment of abbreviations that would result from the translation of "International Organization for Standardization" into the different national languages of members. Whatever the country, the short form of the organization's name is always ISO.

#### Keyboard

The main tool to get information into the computer and the most common way to tell the computer what you want it to do. Most keyboards have the same arrangement of keys as a typical typewriter keyboard. Computer keyboards have additional keys that perform computer-specific functions.

#### MB: Megabyte

Refers to 1 million bytes. Actually, in binary, 2 raised to the 20th power is a Megabyte, or 1,048,576 bytes.

#### Modem

A telecommunications peripheral device that allows computer to communicate with one another via conventional telephone lines. Modems are required for home computers to access the Internet or to send and receive facsimile transmissions (FAX). Modems are rated by their speed in moving data from the computer to the telephone line. This speed is measured in bits per second (bps). Standard modern modems are rated at 28,800 bps, 33,600 bps and 56,400 bps.

#### Mouse

A common input device used to tell a computer what it needs to do. With the invention of the Macintosh and Windows operating systems, computer users needed a device to point at objects on the screen and select them.

#### S-DOS

An older operating system that powered personal computers through their beginning years. Prior to the development of the graphics-oriented Macintosh and Windows operating systems, this system relied on typing commands one line at a time to tell the computer what you wanted it to do. This system is still in use in the Windows family of software and still has many practical uses. Windows 3.1 relies on MS-DOS to operate. MS-DOS stands for Microsoft-Disk Operating System.







#### **Outlook express**

Microsoft's Outlook Express is a email client and NNTP news reader provided for free by Microsoft. *Outlook* and *Outlook Express* are completely distinct platforms without common code

#### **PC: Personal Computer**

A personal computer conforming to IBM standards. While the technical term refers only to IBM compatible computers, used loosely, it can refer to almost any "personal" computer.

#### Pentium - Pentium II

Faster, larger CPU devices that are designed to allow more computing instructions to occur per second. Most computers manufactured in the past 3 to 4 years contain this device.

#### Peripheral Device

Any device that is connected to the computer in addition to the basic CPU-Monitor-Keyboard-Mouse configuration. External speakers, microphones, joysticks, printers, and scanners are examples of peripherals.

#### Photoshop

Photoshop is a bitmap graphics editor, published by Adobe. It is the market leader for commercial bitmap image manipulation. As with most of other Adobe's applications, Photoshop is available for Mac OS and Microsoft Windows.

#### Printer

A peripheral device that allows the computer user to produce paper copies of the information processed by the computer. Common home printers spray ink on paper and are called ink-jet printers. Office and school printers are typically laser printers which work on the same principle as a xerographic copy machine, using electrostatic charges and toner cartridges to place information on paper.

#### Program

A complex set of instructions that allow the computer user to process data. Common programs include word-processing, spreadsheets, databases, drawing and painting, Internet tools, and games. Programs are necessary for computers to be useful to humans.







#### **RAM: Random Access Memory**

Memory that the computer readily reads from, and writes to. Once the computer is turned off, : shut down, the RAM is cleared, : erased.

#### Scanner

An image scanner—often abbreviated to just scanner—is a device that optically scans images, printed text, handwriting or an object and converts it to a digital image

#### Server

A computer which serves the computers connected to it. When you connect to the internet, you connect to your internet provider's server computer.

#### Site

This definition is also listed under *presence*, *Web site* and *Website*. A Web site is a collection of Web files on a particular subject that includes a beginning file called a <u>home page</u>. For example, most companies, organizations, or individuals that have Web sites have a single address that they give you. This is their home page address. From the home page, you can get to all the other pages on their site. For example, the Web site for IBM has the home page address of http://www.ibm.com. (In this case, the actual file name of the home page file doesn't have to be included because IBM has named this file *index.html* and told the server that this address really means http://www.ibm.com/index.html.)

#### Software

The actual program itself, not the disk. A disk is hardware, but the program contained on the disk is software. Software can't be seen.

#### **Vector graphics**

Vector graphics is the creation of digital images through a sequence of commands or mathematical statements that place lines and shapes in a given two-dimensional or threedimensional space. In physics, a *vector* is a representation of both a quantity and a direction at the same time. In vector graphics, the file that results from a graphic artist's work is created and saved as a sequence of vector statements. For example, instead of containing a bit in the file for each bit of a line drawing, a vector graphic file describes a series of points to be connected. One result is a much smaller file.







#### Virus

A malicious program designed to intentionally cause harm to a computer's data files. These programs can be designed to replicate themselves and spread throughout your files, using up memory, and/or destroying data. While viruses might wipe out all of your data, the computer can be restored by reformatting the hard drive and reinstalling the operating system.

#### www: World Wide Web

Computers, linked to each other all around world, resulting in a web of documents and files which have links, allowing you to jump from one location on the web to another.

#### Windows

Windows is a personal computer <u>operating system</u> from Microsoft that, together with some commonly used business applications such as Microsoft Word and Excel, has become a de facto "standard" for individual users in most corporations as well as in most homes.

#### Word

Microsoft Word is a word processor program from Microsoft. It was originally written by Richard Brodie for IBM PC computers running MS-DOS in 1983.

#### ZIP

A method of compressing a file, making it much smaller in size, and capable of being transferred from one computer to another more quickly.

