Storage Devices & Media

Types of Storage	***Uses***	***Advantages***	***Disadvantages***
Floppy Disk	Used for private data. Also used for keeping extra copies of data or for transporting data.	• Private data can be stored. • They are small and therefore data can be taken away and easily used on another PC. • Can be used to make extra back-up copies.	• Not very strong and can get easily damaged or lost. • Not all machines are able to read from the same disk. • The amount of storage space is often too small for some data files.
CD-ROM	Used for data and program that does not need to change. Data cannot be written onto these types of disk. They have data stored digitally, instead of magnetically. Used for encyclopaedias, games, other software.	• Data cannot be erased from CD-ROMS. • CD-ROMs are small and portable. • CD-ROMs have a much larger storage capacity than floppy disks.	• They can get easily lost. • You cannot save to a CD-ROM. • A CD-ROM has a small storage capacity than a hard disk. • It is faster to access items from a hard disk than a CD-ROM.
DVD	Used to store films which are a lot better in picture and sound quality. Can be used on DVD players to connect to TVs or available as a computer package.	• They have a very large storage capacity. • Sound and picture quality is excellent. • There is an increasing availability of products in DVD-format.	• There is still a lot of competition from VHS and CDs because the technology is relatively new.
Hard Disks	Used to store all types of software necessary for to carry out daily tasks. Documents and files are more likely to be saved on hard disk.	• Support the way you computer works. • Large storage capacity. • Stored items are not lost when the computer is switched off. • Come as a fixed unit inside the PC – cannot get lost easily.	• It is not very fast to access the files because the read-write heads have to move to the correct parts of the disk and then read the data. • If the hard disk crashes the computer will not work. • If the hard disk is fixed inside the computer then it cannot be removable.
Magnetic Tape	Data and programs can be transferred onto the tape.	• In large-scale mainframe computers, tapes come in large spools.	• Takes a very long-time to backup data.

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Back-Up Copies

Just in case something goes wrong and data is deleted or spoiled in some way, it is necessary and useful to have back-up copies the data. Most copies are done on floppy disks, but this is not a good choice because they do not store large amounts of data. Today we may use jaz drives or zip drives, but these do not store as much as magnetic tape.
Making back-ups are very important. Backing storage is non-volatile and is always available when we require data and software. Backing storage is normally a hard disk. However, it is very important not to rely on just one type of backing storage; additional copies are useful to be kept elsewhere. There are many reasons why original copies may be deleted or spoilt:

1. If a hard disk crashes, then it is likely that it will not be able to read from the disk.
2. A virus may infect the data.
3. Floppy disks are easy to lose and some people save original copies on floppy disks.
4. A network failure means you cannot get to your work.
5. Human error may lead to data being changed or deleted.

Difference between Main/Internal Memory & Backing Storage

Internal memory is the memory that is occupied by data and instruction being dealt with by the computer at the time. The data or instructions are lost if the PC is switched off.
Backing storage is the additional memory which is used to store data and instructions that we may need to use again and again. The data or instructions are NOT lost if the PC is switched off.

Health & Safety

To minimise health risks and to increase safety there are many regulations and laws that need to be followed. By law, employers in offices need to provide tilt-able screens, adjustable chairs, snit-glare screen filters, foot supports, good lighting uncramped workstations, frequent breaks and eye tests. This has to be done by law in offices but not in schools. However, there are general guidelines to follow. There should be no trailing wires, food and drink should not be placed near a machine, electrical sockets must not be overloaded, there must be adequate space

around the machine, heating and ventilation must be suitable, lighting must be suitable with no glare or reflections, benches must be strong enough to support the computers. Many computer users have back problems, but to overcome this, a fully-adjustable chair should be used to avoid poor posture, footrests and tilting screens. Repetitive strain injury (RSI) is damage to fingers and wrists due to repetitive movements. To overcome, one can use wrist rests and breaks. Eye-strain can be reduced by using filters, using non-flickering screens and good lighting.

Copyright & Confidentiality

All software and other pieces of work have copyright laws. It is not allowed to copy anyone's work that is posted on the internet or received by hand. All work done should be done on your own and any help or data sources should be acknowledged.

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