Professional standards |

It was during the 1980s that the desktop PC really started to take off. Computers went from being large devices only available to organisations to machines that individuals can use and even have at home. Many manufacturers designed their own versions of the desktop PC. The problem was manufacturers would have their own standards for how devices could communicate with the computer. A mouse or printer you bought for one manufacturer's computer wouldn't necessarily work with another manufacturer's computer.

Transferring data between computers was also an issue. For example computers would have their own variations of the ASCII character set.

By having standards that all manufacturers conform to we can overcome these problems. Having hardware that conforms to standards means that a device bought for one computer will work for any other. And software standards make it easier for computers to share data.

Let's take a look at some examples of standards that are used by computers.

USB or Universal Serial Bus is used to transfer data between devices. USB is used on all sorts of devices including mice, printers, external hard drives and mobile phones.

Bluetooth allows devices to communicate wirelessly over short distances. This might for example be a computer and a keyboard or a camera and a tablet.

Not all standards concern hardware. Many are related to software allowing different machines and programs to share data. The ASCII character set means that different devices can interpret binary codes as the same characters. The HTML web language standard means that people can view that same web page whether on a Windows PC, Apple Mac, Mobile Phone or Tablet.

TCP/IP is a set of standards for transmitting data across the Internet. Without standardisation a network on the scale of the Internet would not be possible.

There is an added bonus to having professional standards. Because manufacturers can sell to more people and there is increased competition - prices of peripherals comes down.

Some standards are officially agreed upon by groups of manufacturers. Other standards come about because they become so popular other manufacturers choose to use them too. We call these de facto standards.

Open standards are those that are publically documented and mean that anyone can create hardware or software that uses them.

In this video we have looked at the importance of standards in computer systems and why they make our lives much easier.