**DEVICES USED TO ACCESS WEBPAGES**

**Introduction**

Nowadays, the are a large verity of devices in common use. In this document, I will be outlining what the devices are, their advantages, and their disadvantages.

There are multiple ways devices connect to the internet. These include Ethernet, Wi-Fi, mobile data, etc.

Ethernet

Ethernet is a wired connection to a router. This gives the device a stable connection to the internet; this method is also usually quicker than alternate versions such as Wi-Fi.

Wi-Fi

Wi-Fi is a wireless connection from the device to the router that allows devices to connect to the internet without the use of a wire. It is built in to most devices but if needed, adapters can be used to allow devices to use this function. It is on average slower and less stable than Ethernet cables as it is sending and receiving radio signals rather than sending data down a wire.

Mobile data

Using mobile data works like Wi-Fi except that instead of sending data to a router, data is sent to a phone tower. This means that within range of your SIM-card provider’s phone tower you can get a signal and you are able to send and receive data. You have to pay to use mobile data so the more you use of it, the more you will have to pay; this means that it is a useful tool to have but not always the best option.

1. **Laptop**

**What it is and how it connects to the internet?**

A laptop is a portable computer that has a built-in battery making in portable and usable when not plugged in to power. The device includes a keyboard, screen, and trackpad. Laptops usually connect to the internet with Wi-Fi although some laptops, mostly older or expensive ones, come with built in ethernet as well; [1].if ethernet is needed, most new laptops can get external adapters that plug into the computer allowing for ethernet to be used; these however cost about £15 to buy on amazon.

**Advantages**

-The built-in battery allows it to be used wherever needed as the device does not need to be plugged in. This allows for people to use laptops anywhere they need to not just where the is power.

-As the device comes with a built-in screen, keyboard, and mouse, the do not need external peripherals for it to be able to be used as other devices do.

-Due to their lightweight, laptops can be carried around in a bag and taken with you where ever you want to go; you can use a laptop in a field if you want as it is light to carry, and the battery means that you don’t ned power to use it.

**Disadvantages**

-They are less powerful than other devices such as a desktop computer. Depending on the program(s) being run, this can affect the using experience; most laptops now are quite powerful allowing them to be used for a wide range of scenarios well.

-Laptops are often less upgradeable than desktop computers. This will lead to them needing to be replaced more often.

1. **PC/desktop**

**What it is and how it connects to the internet?**

A desktop or PC (personal computer) is a computer that sits on a desk, or the floor due to its weight. Desktop computers also need to plugged in as the build in battery is not enough to power the computer, only keep the clock accurate. They connect to the internet through Wi-Fi and Ethernet. Dial up Modem does still work on these devices, but it is very slow comparably.

**Advantages**

-Due to them not needing to be portable and small, desktop computers are more powerful than laptops as they can fit larger and more powerful components inside the case.

-Components are mostly universal, this allows for components to be taken from one pc to another; this also leads to easily upgradeable devices.

**Disadvantages**

-Desktop computers are not very portable due to always needing to be plugged in to work, and their weight to move. This means that they need to stay in one location to use it.

-External peripherals are needed to use the computer such as a mouse, keyboard, and screen. This means that a desktop computer is not usable on its own.

1. **Tablet**

**What it is and how it connects to the internet?**

A tablet is a portable device, usually smaller than a laptop, that does not fold but has a built-in screen. Tablets can connect to the internet through Wi-Fi, ethernet -if using an adaptor like a laptop -, and on some devices mobile data through a SIM card.

**Advantages**

-Their small lightweight design with built in battery make them highly portable, versatile devices.

-As tablets can sometimes take SIM cards to use mobile data to access the internet, a Wi-Fi connection or ethernet connection is not needed allowing for connection in more remote places.

**Disadvantages**

-As they are less powerful than laptops or desktops, they quite often run a different operating system; this leads to a different selection of applications or a slower system (if the tablet uses the same OS as a laptop or desktop)

-Tablets are controlled by a touch screen, although external peripherals are available, means that either you use a touch screen -which is less precise than a mouse and an on screen keyboard which often slows down typing compared to a physical keyboard- or get bonus, external peripherals to add to the tablet [2]

1. **Smart Phones**

**What it is and how it connects to the internet?**

A smart phone is a small device that takes a SIM card allowing for texting, calling, and the use of mobile data. They also can run applications designed for the OS (usually android or IOS but others are available), ranging for messaging applications, to music players, to games.

**Advantages**

-Due to the weight and size, it can easily fit in a pocket and so be taken anywhere it is needed.

-The price ranges but you can get a perfectly usable smart phone for under £100 [3]

-The ability to use mobile data to access the internet, allows access in places other devices would not be able to.

-Although they are not as powerful as some other devices, they are powerful enough to use for light work; this means that you are not paying for unnecessarily powerful components, that cost more, when they are not needed.

**Disadvantages**

-Due to them only having a small touch screen, typing on it can prove hard. This effects the accuracy and speed at which people can type.

1. **Games consoles**

**What it is and how it connects to the internet?**

It is a device used solely to play games on. They are powerful but used for a specific purpose. They can access the internet through Wi-Fi or Ethernet.

**Advantages**

-The price of them is cheaper than that of an equivalent PC.

-It can play games, search the internet, and watch things all in one place.

**Disadvantages**

-They can only do a limit selection of things, albeit done well, meaning you get less versatility from the hardware.

-They can not easily be upgraded (apart from the storage) meaning that you will need to get the next console if you want to get a better experience when playing games.

-Typing on it, if you don’t have a compatible keyboard plugged in, is slow and cumbersome.

1. **Smart TV**

**What it is and how it connects to the internet?**

A tv that has the capability to access the internet to play video from several media streaming services. It can connect to the internet through ethernet or Wi-Fi.

**Advantages**

-Easy to use and navigate; this allows even inexperience technology users to use.

-The picture quality is often very good and as it can also be used as an external display, other products can take advantage of this.

-The convenience of having all the relevant media streaming applications in one place is very useful and time saving.

**Disadvantages**

-The is a limited number of applications and functionality available for smart TVs at the moment.

[1] <https://www.amazon.co.uk/TeckNet-Ethernet-Adapter-1000Mbps-Compatible/dp/B07BLMCB2H/ref=sr_1_3?adgrpid=81550644163&dchild=1&gclid=Cj0KCQjwhvf6BRCkARIsAGl1GGjOd4p1BM8X7rundSKPCnqfwxvTlSEACg8QRHA8zbmcehBGwJK-BP0aAvCSEALw_wcB&hvadid=394021997235&hvdev=c&hvlocphy=1006849&hvnetw=g&hvqmt=e&hvrand=12633458673885974178&hvtargid=kwd-385194570885&hydadcr=26609_1931193&keywords=ethernet+to+type+c+adapter&qid=1600021883&refinements=p_72%3A419153031&rnid=419152031&sr=8-3&tag=googhydr-21>

[2]<https://www.researchgate.net/publication/2367032_Investigating_Touchscreen_Typing_The_effect_of_keyboard_size_on_typing_speed>

<https://www.livechat.com/typing-speed-test/#/>

[3] <https://www.argos.co.uk/product/3157864?clickSR=slp:term:smart%20phone:1:644:1>