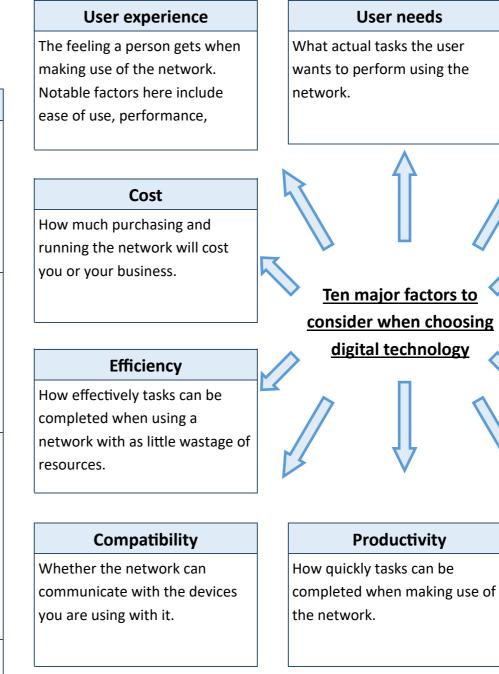## Types of Networks

A network is where two or more computers are linked together in order to transmit data. These links are created using some of the wired and wireless methods we learnt about in the previous lessons, such as Ethernet cables and WiFi.

However, there are different types of networks that we use at home or in business. These different types of networks are usually defined by their size, but there is more to them than just that. They each have their own features and uses.

Network	Features & Use	✅
Personal Area Network	Is a network within the range of a single person. It is commonly created wirelessly using Bluetooth or wired using USB. It is used to connect digital devices together, such as to sync files/emails/calendars between devices or transmit data with wearable devices like a headset.	It can reduce cabling, automatically sync data between devices & is secure for transferring data.
Local Area Network	Is a network that spans a relatively small geographical area, usually a single building or site. It is commonly created using ethernet cables, or WiFi for a wireless LAN. It is used to allow computers to share resources, such as an internet connection, a printer or access to files.	It lets you share peripherals, access files flexibly and centrally manage computers.
Wide Area Network	Is a network that spans a large geographical area, such as an entire country or the whole world. It is commonly created using dedicated network lines rented from a telecommunications provider, but can also run over the public internet using a VPN. It is used to transmit data securely between different locations in a business, such as confidential documents or emails.	It is secure, files can be accessed from across different business offices and is often very fast.
Virtual Private Network	Is a private network that runs across a public network, namely, the internet. It is commonly created using an encrypted tunnel through the internet. It is used to transmit data securely between different locations without the cost of a dedicated private WAN.	It allows you to access work files remotely, is cheaper than a WAN and is secure.

Network Choice Factors

When choosing a network there are also considerations towards the components we choose and how this will affect the performance of our network.

User experience	User needs	The specification
The feeling a person gets when making use of the network. Notable factors here include ease of use, performance,	What actual tasks the user wants to perform using the network.	The specific requirements of the network in order to allow users to perform their tasks.

Cost		Connectivity
How much purchasing and running the network will cost you or your business.		How the network can be connected to by devices.

Ten major factors to consider when choosing digital technology

Efficiency		Implementation
How effectively tasks can be completed when using a network with as little wastage of resources.		The time involved with putting a new network into effect. Notable factors here include timescales, testing & downtime.

Compatibility	Productivity	Security
Whether the network can communicate with the devices you are using with it.	How quickly tasks can be completed when making use of the network.	How safe the network is from security threats, such as hackers.

Network Choice Factors

The performance of a network is heavily affected by its components. For example, SOHO (Small Office Home Office) networking equipment cannot provide the performance of professional equipment.
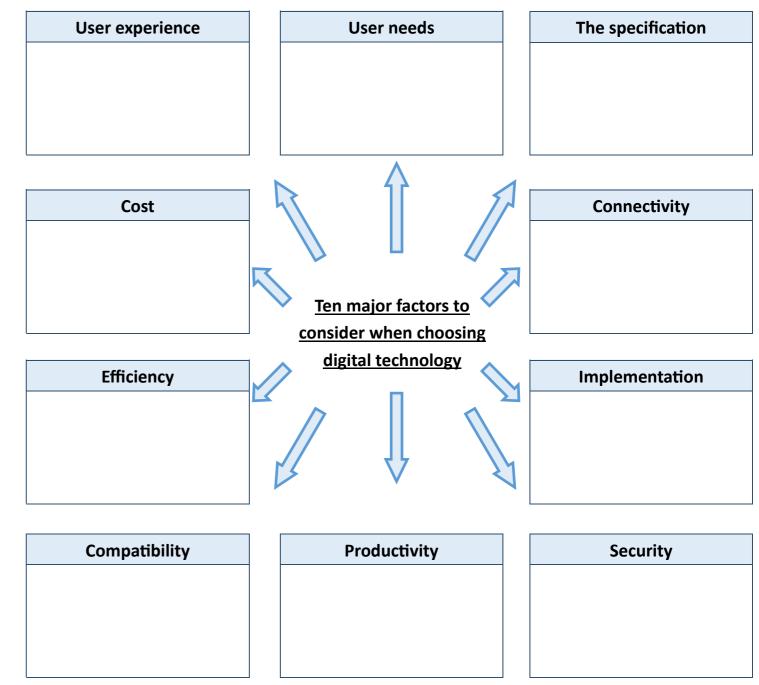
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Local Area Network		
Wide Area Network		
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