COMPUTING: COMPUTING SYSTEMS AND NETWORKS- Communication

KNOWLEDGE ORGANISER

Overview



Searching and Communicating

-You should already know that the internet is a network of networks.

-You should also know that the World Wide Web is the part of the internet where we can visit websites and webpages.

-The World Wide Web can be used to find information, using search engines.

-The internet is also a useful communication tool – with a number of different communication mediums for a range of different purposes.

Search Engines - Introduction

-We can find information on the World Wide Web by using search engines.

-A search engine is a program that finds websites & webpages based on key words entered by the user.

-When the World Wide Web was invented by Tim Berners-Lee in 1989, there was only 1 website. By 2018, there were 1,630, 322, 579! The World Wide Web is a big place, and we need search engines to be able to find what we need.

-Some examples of search engines are Bing, Google, Yahoo, DuckDuckGo and Kiddle.

-You can also type searches into the address bar of the browser (e.g. Google Chrome or Microsoft Internet Explorer).



Selecting and Ranking Search Results

Selecting Search Results

-Search engines use programs known as crawlers to index the World Wide Web.

-They 'crawl' websites for searchable information – they then store where it is found in a huge index.

-Search engines select information from this index when we type in key words.

-Searching for some search terms can bring many millions of results.

-We need to make sure that our search terms are as refined as possible, in order to allow the search engine to select the information that is most relevant.

Ranking Search Results

-Search engines 'rank' the web pages (the highest ranked page is at the top).

-Search engines use algorithms to do this – algorithms look at a number of different factors and give web pages a score for each.

-The web page with the highest score ranks the highest.

-Some factors include if the search term is in the title of the page (high points) or if it appears in the paragraphs of the text on the page (lower points).

-Web designers consider algorithms when making when pages.

Online Communication

-Communication is when we share information with one another. We can communicate in lots of different ways on the internet, e.g. messaging services, emails, social media, video calling, blogging/vlogging and gaming platforms.

-Public communication is visible to all, whilst private communication is restricted to only some people.

-Some communications are one-way (e.g. Youtube) whilst others are two-way (e.g. Skype).

-Some communications are to one person, whilst others are to many.

-We should consider which type of communication is most appropriate to our needs, safety and privacy.



Important Vocabulary

Search Engine | Refine | Index | Web Crawler | Ranking | Links | Searching | Selection | Communication | Public | Private | SMS | Blog | World Wide Web