How I Use It: The Internet

In the 1970s, technology was developed in order to network computers. This consisted of a set of communications protocols or rules, which enabled computers to connect and talk to each other. In 1983, the predecessor of the Internet adopted the protocol standard, which is now known as the Internet Protocol Suite otherwise known as TCP/IP. The Britannica Concise Encyclopedia defines these protocols; ‘TCP is the component that collects and reassembles the packets of data, while IP is responsible for making sure the packets are sent to the right destination’. An IP address is assigned to a computer when it logs onto the network (now commonly known as the World Wide Web) and acts like a postal address for electronic communication. Uniform resource identifiers are used by the Internet to identify resources either by name (URN) or location (URL).

Software known as Internet browsers have been developed to assist navigation and find the resources required from home computers. They also ensure that the information is viewed in a user-friendly format. Newer browsers also offer a number of additional benefits including security, privacy settings, synchronization (which allows you to store information on the web and access it when you log on to the Internet from a different computer) and plug-ins, which specialize in processing particular types of content. A review of the top 10 Internet browsers can be found at: internet-browser-review.toptenreviews.com.

Cost

The cost of the Internet depends on your provider and the technology used. The oldest technology is narrowband dial-up which uses a standard telephone line and is now considered very slow and susceptible to interference. Broadband refers to a band of frequencies available to transmit information. The speed is dependent on the bandwidth accessible. Accessibility is also affected by the means of transmission with ADSL relying on telephone lines, while cable relies on robust fibre cabling, faster than traditional copper telephone lines. It is possible to check the speed of transmission. You will also require a modem, which receives the signal into the house and needs to be matched with the technology used to provide the Internet; usually provided free of charge by your provider. Another type of modem available is a ‘dongle’, which allows a computer to receive broadband over a mobile network. A router is used to communicate the signal from the modem to computer or computers and can be wireless to avoid the need of cables or wires. It should be noted that wireless Internet uses the radio spectrum and therefore performance degrades with distance and transmission through solid objects. For more detailed information, go to www.ispreview.co.uk.

Uses

The Internet has allowed individuals to access large volumes of information, which previously would have been difficult to access in a timely manner. In addition, it has allowed communication between people across vast distances almost instantaneously. This has been developed further with Web 2.0 applications into an interactive virtual world. This allows, when harnessed properly, people to extend their influence, widen their understanding and contextualize information better. By developing skills, the Internet can also be used to improve efficiency both at work and at home and widen your knowledge base effectively. Examples of this include online collaboration in developing joint projects, use of RSS feeds to inform you when there is an article which interests you to prevent you from having to scan all relevant journals and developing search techniques to deliver validated information quickly. For more detailed information regarding the web 2.0 phenomenon, go to www.explainingcomputers.com/web2.html.

What are the risks?

The Internet is easy to use but hard to master. Like any form of communication, there is a need to understand security and privacy measures to ensure protection against cybercrime. It is therefore important that you understand how to protect yourself through appropriate use—firewalls and antivirus programmes although essential are not enough. Maximum use of privacy settings can assist in this task and there are a number of website sites advising on simple security measures to enhance protection. Measures also need to be taken to prevent giving unnecessary information about yourself to others. It is important to understand that engagement with the Internet develops your Internet profile, which is accessible to others. ‘Googling’ your name, asking friends to check your profiles on social networking sites and giving out the minimum amount of personal information to Internet sites will help protect your cyberimage.

Another risk of using the Internet is failing to identify false or misleading information published on the Internet. It is therefore important to verify information you obtain through the web by validating sources, triangulating data and critically appraising articles in the same way that we assess newspaper articles, journal papers and other written information.

A simple but very useful guide about the Internet, browsers and related information can be found at www.20thingsilearned.com.

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