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Module A.4a Part 2 Answers

1. The Internet is a worldwide network of computers, linked mostly by telephone lines.
2. The Web is the worldwide collection of text pages, digital photographs, videos, music files, and animations you can access over the Internet..
3. A similarity between the Internet and the Web is that they both speak the same language and are used on devices like monitors, phones, tablets, etc. A difference between the Internet and the Web is that the Internet is a network which allows you to run many different programs on it, whereas the Web is a collection of a variety of content which is accessed over the Internet and is a type of application.
4. The reason as to why it was difficult for early computers to communicate was because the machines made by one manufacturer were often totally incompatible with the machines that were made by everyone else. In the 1970s, early PCs could not run the same program because each type of computer had a program written especially for it. Hooking up computers together was possible, but tricky. Also, it was impossible to do things like email and chat, except for scientists who had an idea of what they were doing.
5. The computers being unable to communicate with each other changed in the 1980s. The first thing that happened to fix this was that IBM (the world's biggest computer company) who is famous for its “Big Blue” mainframe, introduced a personal computer which was made for small businesses. Other people started to copy it and later on, all personal computers started to work and look the same way. Microsoft came up with a piece of software called Windows that allowed all these "IBM-compatible" computers to run the same programs.
6. ASCII stands for the American Standard Code for Information Interchange. It is sometimes known as “plain text”. ASCII is a code which represents the letters, numbers, and keyboard characters. ASCII helped solve the communication problem because Berners-Lee used ASCII to come up with two rules (known in computer terminology as protocols), which were HTTP and HTML.
7. HTTP stands for HyperText Transfer Protocol. It is a way for two computers to exchange information through a simple conversation whether they are next to one another in the same room or on opposite sides of the world. One computer (which is called a client and runs a program called a web browser) asks the other computer (which is called a server or web server) for the information it needs with a series of simple messages. The web browser and the web server have a conversation for a little while, with the browser sending requests for the things it wants and the server sending them if it can find them.
8. The browser is explaining what software it is, what operating system its running, which character-sets (foreign fonts and so on) it can accept, which forms of compressed file it can understand, and which file it wants.
9. The server is sending a compressed file, along with data about how long it is, and what format it's in.
10. HTML stands for HyperText Markup Language. It was based on ASCII, so any computer could understand it. HTML has special codes which are called tags to structure the text, unlike ASCII. A Web browser can read these tags and use them to display things like bold font, italics, headings, tables, or images.
11. A HTML document is different from a regular text document. The reason for this is because HTML is the way web pages and email templates are coded so that text is formatted and images are added. Regular text documents have no formatting options such as italics, bold, underlines, or special layout options.
12. HTTP is the easy way in which one computer asks another one for Web pages and HTML is the way those pages are written so any computer can understand them and display them correctly.
13. The four parts of a URL are:

* The *http://* bit means your computer can pull this page off my computer using the standard process called HTTP. If the URL begins with *https*, the page is encrypted as it travels between your browser and the Web server (so things like credit-card numbers, user names, passwords, and so on are kept secure from interference in transit). https pages are inherently more secure than http pages, but https alone does not make a website completely secure: it simply secures the connection between your computer and the server (or servers) you're talking to.
* *www.explainthatstuff.com* is the address or domain name of my computer. Some websites use domain names that begin with things other than www (for example *maps.google.com* and *mail.yahoo.com*), which are called subdomains. *maps.google.com*, *drive.google.com*, and indeed *www.google.com* are all subdomains of the main google.com domain.
* *howthewebworks.html* is the name of the file you're currently reading off my computer.
* The *.html* part of the filename tells your computer it's an HTML file. Other filenames you might see include *.php* and *.asp*, which mean the pages you're looking at are "dynamic"; unlike "static" HTML pages, dynamic pages are built specifically for you, at the moment you request them, by the web server.

1. The purpose of a URL is that it tells your computer where to find this page on a computer, how to access it and what to do with it to display it correctly. A URL is important because it directs your computer to the right page and makes sure to access what needs to be accessed.
2. The easiest way to host a website is to get someone else to host the website for you.
3. The simplest way to edit a webpage is to use a text editor like Notepad or WordPad on Windows and build up your pages from raw HTML web page coding as you move on.