Tutorial 2 M150

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1) Define the Internet and the Web?

2) Define the followings : (1) HTTP (2)FTP (3)URI (4)WWW (5) HTML and (6)Website?

3) How has the Internet contributed to the processing of data? Give examples

4) Discuss the advantages and disadvantages of Internet. If you are buying something online how can you make sure that your details will be safe when completing the transaction?

5) Describe how the Internet is implemented and the mechanism of how it works.

6) What is Netiquette and how can it be enforced? Give example of good and bad netiquette.

7) Create drawing representation for the following situations :

   a) Thieves are operating in this area
   b) Do not enter
   c) Toxic waste disposal area
   d) Beware of ghosts
   e) Genetically Modified food field
   f) OU is good for your career
   g) Beware of Marcians

Answer to question 1

The *Internet* refers to the physical interconnection of large numbers of smaller data communications networks to form a huge, publicly accessible 'network of networks'. Thus the internet carries electronic mail (email),hosts chat rooms and bulletin boards, enables the transfer of files, and is the physical basis for supporting the World Wide Web.

The *Web* is the collection of linked data stored on the internet which is accessed using a browser.

Answer to question 2

HTTP: HyperText Transfer Protocol and is a kind of language or scheme that web addresses are written in.

FTP : File Transfer Protocol lets authorised users download files from (or send files to) any other computer connected to the network.

URI : Uniform Resource Indicator. A URI is the address of a page, or a site on the World Wide Web. The URI of a page you are looking at will appear in the box marked 'Address' on the top of your web browser. Many of them will look something like this: http://www.open.ac.uk (the URI of the main OU website), but do not be surprised to find all sorts of numbers, text and symbols there.

WWW : World Wide Web is the collection of linked data stored on the internet which is accessed using a browser.

HTML : HyperText Markup Language is the language used to implement website. It uses tags to represent font type, image insertion ..etc. E.g. <B></B> indicates to display the text in bold.

Website : The contents that can be accessed when the user accesses a specific URI.

Answer to question 3

Data refers to discrete items, such as the price of an item on the shelf of a supermarket, or the type of product listed on a sign over a supermarket aisle. It can be person's name or the number of a bus route. *Information* involve linking together two or more items of data to provide an item of knowledge. The *Internet* enabled the efficient linking of two or more websites that relate to the same subject, thus it enabled the storage, processing and dissemination of information on mass worldwide scale. This lead to the creation of digital world or community.

Answer to question 4

Some of the advantages of Internet are :

1) Ability to link information specific data on a mass scale
2) Allow the creation of digital community
3) Enforce democracy in society that don't have it
4) Allow data mining and finding trend in global data e.g. market prediction and finding a star using infra-red telescope or the cure for cancer but working out the mechanism of how cancer start
5) Help small business to get started up and maintained via Website
6) Help businesses provide better customer care e.g. providing technical support online and chat to representatives online

Some disadvantages are :

1) Linking information on mass scale require intelligent search engine and sometimes having access to huge data can lead to reach to the wrong conclusion
2) Digital community encourage anti-social behaviour as people will not need to get out of their own homes and go to pub
3) Enforcing democracy is excellent and it allows free speech or expression of opinion but the downside is free access to information allow malicious people to destroy society for example by putting on the website instruction on how to make a crude nuclear bomb or encourage anarchistic behaviour. The main problem is that the Internet in its current form is very difficult to regulate and anyone can use freedom of access to information to their own purposes. Its like a society without rules. Good analogy of this is that the Internet currently is similar to Iraq where in Iraq there is freedom of speech against the deposed government but its essentially a lawless society where anyone seem to be able to do anything. Thus enforcement of standard and monitoring the Internet is critical
4) Data mining depends on how good the algorithms are at detecting trends. There are many cases where people are arrested on suspicions that turn out to be false. This could be a waste of time and money if for example a computer detected a specific gene to be the cause of cancer and billions of money spend on it but turned out to be false
5) Internet help small businesses to get started but if everyone can setup their own company and advertise for free then this can lead to people setting up businesses that don't have solid foundation eventually leading the company to go bankrupt. This was the cause of the bursting of the Internet bubble in 1999/2000
6) Providing business services online can lead to cost cutting and job losses because the human element is no longer needed and taken out of the loop

If businesses are to succeed customers have to be able to order online. For that a secure system have to be setup. However security using online ordering is not 100% and there are many incidents of hackers accessing customers data the most famous one being that of Welsh hacker David Gray who hacked into system that used Microsoft SQL server and accessed Bill Gates credit card details and order Viagra for him using his credit card. Also more recently group of people have displayed the whole code for Windows 2000 on the Internet for anyone to access freely.

So currently to ensure that your transaction details are secure using websites that have *https* instead of *http*, s indicates that the website is secure.

Answer to question 5

The *Internet* uses *handshake protocol* to establish link between user computer and the network, once connection is established a protocol called *TCP/IP* (Transmission Control Protocol/Internet Protocol) which takes data and bundles it up in appropriate parcels for transmission.IP moves the parcels along networks and makes sure they are delivered to the right address.

Answer to question 6

Netiquette is the name for the collection of guidelines setting out appropriate email behaviour. It aims to minimise discourtesy or misunderstanding in email use. *Netiquette* is not enforced by regulation but is voluntarily adopted by email users. Its guidelines lay down rules for sending and forwarding items under different circumstances, for participating in groups, and for posting messages on lists.

Example of good netiquette is to be polite in email and be to the point i.e. polite but formal. Use of emicons to expression emotions is good netiquette. Bad netiquette example is using words in capital letters e.g. DEAR JOHN, LETS MEET TO DISCUSS COMPANY PLANS SOON. In netiquette this can be interpreted as shouting at John or ordering him to do something and that is bad.