# 11.1 Basic Features

The internet was established in the USA in the early 1970s. It now connects millions of computers world wide in homes, schools, universities, governments and businesses. Today, the internet is used in the following ways:

* Communication (email, chat groups and video conferencing)
* Accessing information from websites, databases and newsgroups
* Downloading data and software
* Conducting business (eg. Transferring funds)
* Playing multimedia games and streaming videos and music

## Connecting to the internet

Most users will require a computer, a modem, a telephone line, an account with an Internet Service Provider (ISP) and software (eg. Web browser and email). The modem allows the transmission of data from one computer to another. Modems maybe internal or external to your computer. An ISP is a company (eg. TPG, Optus, Telstra) which provides access to the internet for a fee.

Computers connected to the internet use a protocol (set of rules governing the transmission of data between devices). The protocol is called TCP/IP (transmission Control Protocol/Internet Protocol). TCP/IP works by breaking information into smaller packets of data. Each data packet contains the information and address of the receiving computer.

## The World Wide Web

The world wide web (WWW) provides a user-friendly interface to the internet and quick access to documents. A website is a group of documents that provide information on a particular topic. Each document is called a webpage and they are stored on servers. Each server is able to store thousands of webpages from different websites. To view a webpage requires software called a web browser.

A hyperlink contains an embedded link to another source. Expressions such as “surfing the net” or “browsing” referred to jumping from one page to another using hyperlinks.

## Usenet and newsgroups

Usenet is made up of discussion groups which have common interests and wish to discuss or exchange information about them. People can read messages or join in discussions by posting or sending their own messages. The groups are referred to as newsgroups. Contributors to usenet come from all over the world. Each newsgroup is classified into one of eight main categories:

* Computers (comp)
* Social issues (soc)
* Science (sci)
* Recreation (rec)
* Discussion (talk)
* Miscellaneous (misc)
* Newgroups (news)
* Alternative (alt)

The letters after each category are used to tell usenet users which topic a person wishes to discuss and is placed in front of the category eg:

Newsgroups have a code of behavior to be followed by usenet users.

* Enter a newsgroup for several days and read the messages before you make a posting. (This is known as ‘lurking’.) Determine what is appropriate for that newsgroup.
* Post inoffensive messages. Be aware of cultural differences.
* Do not post messages that infringe copyright.
* Do not send the same message to various newsgroups (‘spamming’)

## Internet Relay Chat

Internet Relay Chat (IRC) is the most common text-based system. It provides a real-time conversation with one person or with hundreds of people. There are three main types of groups chatting on the internet: text, graphical and voice. Chat rooms are virtual rooms located on computers called IRC servers. Here people can chat to individuals or in groups. Graphical and voice chat software is popular but requires higher computer hardware power usage. There are rules regarding appropriate behavior in chats:

* Respect the privacy of people in chat rooms. Do not enter private channels.
* Do not write long messages. Long messages are best sent using electronic mail.
* Do not use offensive language. If you have a disagreement with someone, just ignore them.
* Be friendly to other people, particularly newcomers

Users should never reveal their addresses or phone numbers in chat rooms.

## Downloading Files

Web pages consist of different types of files, eg text, graphics, animation, video and sound. There are also software files which are connected to webpages via hyperlinks. A person can view a webpage or copy it from the webserver.