

Web and Communication

1. Internet

Internet

- A computer network created by connecting two or more computers to each other is called a local network. The network of networks to which more than one computer or local computers are connected is called the Internet. In other words, the Internet is the communication between computers all over the world with the infrastructure equipment offered by the service provider company.
- In 1969, computers were connected to each other and the network called ARPANET was established to meet the needs of the US military. While this network was initially used to meet military needs, towards the end of the 1980s, communication and communication between computers were needed in universities and commercial areas.
- As a result of these requirements, institutions have begun to access all kinds of information and documents and communicate with each other via Internet Service Providers (ISP).
- Turkey in the history of the Internet began to be used through April 12, 1993 METU Department of Computing.

Internet Protocol (IP)

- In order to communicate effectively and accurately on the Internet, each computer must have a unique address.
- Each computer (personal computer, workstation, etc.) on the Internet has an address with numbers from 0-255 separated by periods.
- These addresses can be given as fixed or variable. For example, "80.251.40.17" is the IP address of a university's WEB site.
- These addresses are named as Internet Number or IP Address and range from '0.0.0.0' to '255.255.255.255'.

World Wide Web (WWW)

- It is a format for the files on the Internet.
- Institutions, organizations and individuals create their information in web format, and people who connect to the Internet access these pages with the help of a browser such as Internet Explorer.

Internet Service Provider (ISP)

- Internet Service Providers act as intermediaries for connecting computers to the Internet by providing infrastructure support.
- There are companies like Turk Telekom, Digiturk, Turkcell Superonline, Uydunet, Vodafone, D-Smart which offer Internet services in Turkey.

URL (Uniform Resource Locators)

- URL (Uniform Resource Locators) specifies the address of a WEB file on the Internet.
- URL addresses consist of 3 parts: protocol name, server name, and directory or file name.
- An example URL address is <http://www.ankara.edu.tr/bolumler.aspx>. In this address, "http" refers to the protocol name, "www.ankara.edu.tr" refers to the server name, and "bolumler.aspx" refers to the file name.
- There are some standards in order to avoid confusion in web addresses and to classify addresses according to certain categories. For example in <http://www.education.ankara.edu.tr/> address, "tr" abbreviation is used at the end to indicate that an address belonging to Turkey.

Internet Addresses and Their Usage

Address	Usage
com	Commercial Organizations
gov	Governments
edu	Educational Organizations
mil	Military
org	Organizations
gen	General
net	Internet Service Providers
k12	Private Educational Organizations and Colleges
info	Sites providing information

2. Security

Security

Internet users may be exposed to some threats related to data security due to both viruses and some malicious software and malicious people called hackers. For this reason, to ensure data security in the Internet environment;

- Anti-virus programs should be installed on the computers
- Personal user information should not be shared with others.
- TR ID number, address, etc. information should not be shared in the internet environment.
- After using another computer, it should be checked that e-mail addresses, passwords and information are not saved.
- Confidential information such as user passwords, bank credit card numbers and the like should not be sent by e-mail, over websites without security lock.
- Internet connections that come to your e-mail address or via social media should be opened after making sure they are reliable.
- In addition to connecting with a password to e-mail addresses and social media addresses, a password can be sent to a phone number to increase security.
- "Parental Control Options" should be used for children through Internet Service Providers, virus programs or operating system.

3. Internet Browsers

Internet Browser Software

- There are different browser software that can be used in different operating systems to connect to websites.
- Internet Explorer, Mozilla Firefox, Safari, Google Chrome and Opera are examples of commonly used browser software.



4. Communication

Electronic mail (E-mail)

- Electronic mail (e-mail) is one of the most frequently used services on the Internet.
- E-mail is used to transmit electronic messages to other users on the Internet.



Electronic mail (E-mail)

- To send e-mail to any user on the Internet, it is necessary to know the e-mail address of that person.
- The e-mail address is a component consisting of the user code and the domain name of the system it is connected to. The "@" symbol is used to separate user code and domain name information.
- Email addresses are personal, so it is impossible for two Internet users to use the same address. T
- here are many software available for sending and receiving e-mail that can be used in different operating systems. For example; E-mail communication can be provided by using software such as "pine" in Unix-based environments and "Outlook Express" in Windows-based environments. In addition to these software, e-mail communication can also be provided by using web browsers through service providers such as Gmail, Hotmail, Yahoo or private e-mail services of institutions.

Electronic mail (E-mail)

To send an e-mail through all e-mail service providers;

- The e-mail account is created.
- A new e-mail is created with options such as "Write Email", "Write", "Compose New".
- In the "To" or "Recipient" field, the e-mail address of the person to be e-mailed is written.
- A short title text is written in the subject section to reflect the content text.
- The e-mail content is written in the field under the subject section. E-mail can be sent by adding photographs, pictures, documents with the text to the content. This can be done with the "Add" option or icon in the subject section.
- E-mail can be sent to the recipient or recipients with the "Send" options.

Email recipients

- In e-mail systems, recipients have To (To), CC (Copy), Bcc (Confidential Copy) "sections. You will see that there are 3 types of shipping methods: "To, Copy, Confidential".
- **To:** The person who is expected to receive the e-mail and reply to the e-mail. In this section, you can send an e-mail to a person, as well as bulk e-mail by typing more than one e-mail address.
- **Cc:** With "Cc", which is the abbreviation of "Carbon Copy", a copy of the e-mail is sent to the person or persons who are asked to be informed about the e-mail. Generally, the recipients in the "Cc" section do not reply to the e-mail unless necessary, but follow the process.
- **Bcc:** The recipient whose address is written in the "Bcc" part of "Blind Carbon Copy" abbreviation, receives the e-mail. However, the people you write in the "To" and "Cc" sections will not be aware of this situation, the hidden copy of the e-mail will be sent.

Search engines

- The rapid increase in the number of web sites and pages on the Internet and the increase in information resources accordingly cause the options offered to us as users to become intense and it becomes difficult for us to access information.
- For example, if we want to access information on a subject on the Internet and we do not have a web address, what can we do? If we are looking at the dictionary to find the definition of a word we do not know the meaning of, the encyclopedia to find detailed information about an event, the atlas to find out the position of a city or country in the world, when we want to reach the site addresses related to the subject we are looking for on the Internet, we use search engines on the Internet and search. must.
- There are addresses, "search engines" (Search Engines), where the content in web sites around the world is indexed. When the user enters one or more keywords, search engines find the web pages that contain this word (s), list the web addresses and page titles of these sites and present them to the user.

Using a search engine

- Search engines can be accessed by URL address just like other websites.
- Fast and reliable access to the information we seek on the Internet requires us to use these search engines effectively.
- Some common search engines are Google, Yahoo and Yandex.



Setting search properties

- To use search engines, we need to link to the relevant website and provide the keywords we want to search for. When we give the keyword or words and click the "Search" button, search engines do not search the entire Internet at that moment. Search engines scan the list of files (can be thought of as an index or database) that they have already scanned and indexed and present the result of this list to the user. Of course, keeping these lists up-to-date is extremely important in such a fast-moving information world, so keeping the lists up-to-date is extremely important.
- Search engines give us different options for searching. Therefore, before we start the search process, we need to specify some features related to search. These features can be different for each search engine.
- For example, in "Google" we can perform search operation in web pages, in the graphics, in groups or directories. We can limit the search process our pages with the Turkish content pages or Turkey. In addition, you can search by different information from the advanced search page.

Using a keyword in search

- Using search engines, we perform the search using specific keywords, as in library searches. The point to note here is the choice of keywords. If very general concepts are used, we will have too many results, and finding truly relevant pages can be both time consuming and distracting.
- On the other hand, using too many words may result in very relevant pages not being displayed due to one word and we may get too few results. For this reason, keywords should be chosen carefully, aiming to further limit the result obtained.
- As a result, one more word should be added at each step and the result should be observed.

Commonly Used Operators in Searches

Operator	Sign	Example	Result
AND	+	Internet AND Web	All websites containing both words
OR	^	Internet OR Web	Any website containing Internet or Web word
NOT	-	Internet NOT Web	All sites that do not contain Web but have Internet