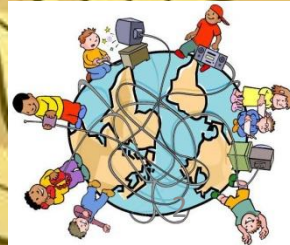# Internet

Presented By:

Dr. Shailendra Kumar Singh

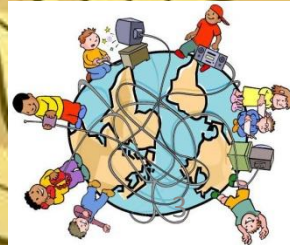E-mail: drssengar@gmail.com

Content

- What is Internet

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  - Newsgroups

  - Internet Relay Chat (IRC)

  - Telnet

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- Terminology of Internet

- How Does Internet Works

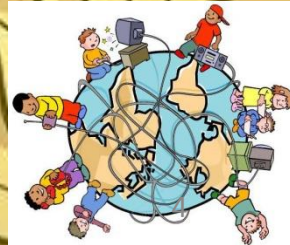- Conclusion

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What is the Internet?

- The Internet is a global network of computer networks utilizing a suite of protocols called TCP/IP (Transmission Control Protocol/Internet Protocol) that supports interconnection of a number of different computer networks.

- The Internet covers large, international Wide Area Networks (WAN's) as well as smaller Local Area Networks (LAN's) and individual computers connected to the Internet worldwide.

- The Internet supports communication and sharing of data, and offers vast amount of information through a variety of services and tools.

Major Internet Tools & Services

- Electronic mail (email)

- Newsgroups

- Internet Relay Chat (IRC)

- Telnet

- File Transfer Protocol (FTP)
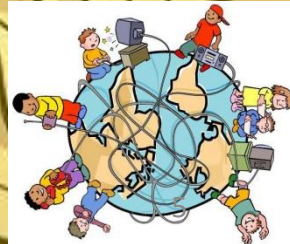
- World Wide Web (www)

- Social Media

- Webinar

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Major Internet Tools & Services

Electronic mail (Email)

- The most popular use of the Internet
- Available for free on the web
  - Google mail, Yahoo mail, Hotmail etc.
- Valid e-mail address consists of a username and a domain name separated by the @ sign.
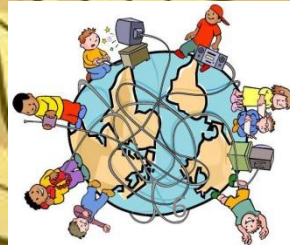 - ex. drssengar@gmail.com

Major Internet Tools & Services

IRC (Internet Relay Chat)

- Allows real-time text based communication through the Internet

- Organized by topic of interest into "channels"

- Discussion occurs in "chatrooms"

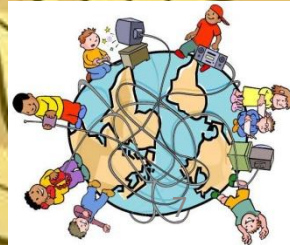- Some Websites have built-in chatrooms

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Major Internet Tools & Services

FTP (File Transfer Protocol)

- Allows the transfer or copying of files from one computer to another

- Ideal for procuring or sending files to a remote computer

- FTP Programs available freely
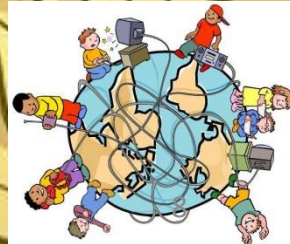
- Modern browsers have built in FTP capabilities

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Major Internet Tools & Services
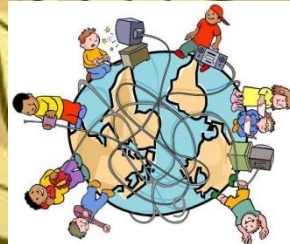
World Wide Web (www)

- Invented in 1991 by Tim Berners-Lee, the web is the fastest-growing Internet service.

- Based on HTML (Hyper Text Markup Language) allowing users to access data in multimedia format

- Simplest unit is the Webpage, primarily a document encoded in HTML format that can be accessed by using a browser

- HTML links contents of a Webpage to each other as well as to other Web pages through a hyperlink

- Each page has an address, a Uniform Resource Locator (URL)
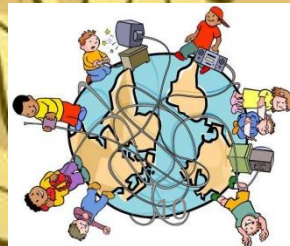
History of Internet

- The Internet grew from ARPANET the first computer network designed for the Advanced Research Projects Agency (ARPA) of the U.S Department of Defense in 1969.

- ARPA sponsored research on interconnecting geographically remote computers to allow communication and sharing of data and resources.

- The Internet started as a military network called ARPANET, which was involved in networking research.

- The Internet later expanded to include universities, businesses and individuals.

- Today, the Internet is also referred to as the Net, Information Superhighway, and Cyberspace.

Terminology of Internet

- Protocols – standardized rules that define how computers communicate and exchange data.

- IP address – unique number used to identify computers on the Internet.

- Domain name – structured naming system to locate computers on the Internet .

- URL – uniform naming scheme that specifies unique addresses of Internet resources.

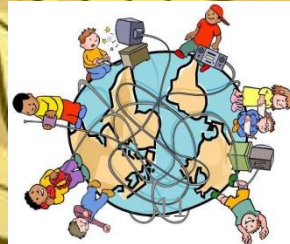- Client and server – computing architecture used by most Internet services

Terminology of Internet

Internet Protocols

- HTTP (Hypertext Transfer Protocol) - for accessing and transmitting World Wide Web documents

- FTP (File Transfer Protocol) - for transferring files from one computer to another

- Telnet Protocol - allows users to logon to a remote computer

- SMTP (Simple Mail Transfer Protocol) for sending and managing electronic mails (e-mail)
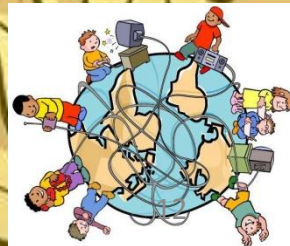
Terminology of Internet

IP address

- IP address is a unique address assigned to each computer connected to the Internet

- It is used by TCP/IP to route packets of information from a sender to a location on the Internet

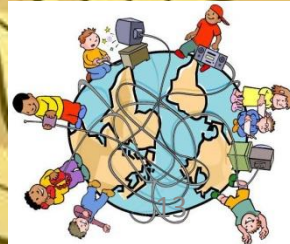- IP address consist of four sets of numbers ranging from 0 to 255 like 164.100.68.64

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Terminology of Internet

Domain names

- Domain names are the alias or English language equivalent of a computer's IP addresses
- Domain Name System (DNS) allows the use of easier to remember domain names instead of IP addresses to locate computers on the Internet
- Domain Name Resolvers scattered across the Internet translate domain names into IP addresses
- Domain names have two parts:
  - First part names the host computer
  - Second part identifies the top level domain
- Top level domains (TLD) – identifies the type of host
  - Generic Top Level Domains
  - Country Code Top Level Domains
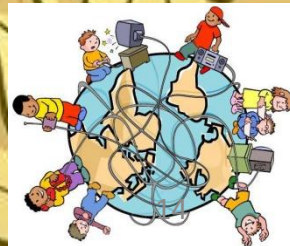- Domain names are used in URLs and e-mail addresses

Terminology of Internet

Top Level Domains

- **.com** – commercial/company site
- **.edu/ac** - educational/academic
- **.gov** – government site
- **.org** – non-profit organization
- **.mil** – military sites
- **.int** – international organizations
- **.net** – network providers
- **.info**-general use by both commercial and non-commercial sites
- **.name** - general use by individuals
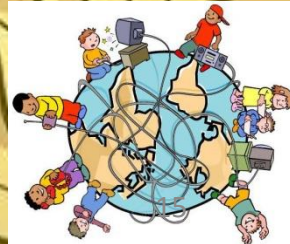- **.pro** - restricted use by certified professionals and professional entities

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Terminology of Internet

UNIFORM RESOURCE LOCATOR (URL) Description

- http://www.dpbscollegeanoopshahr.org/BEd/Faculty-Of-Education.html

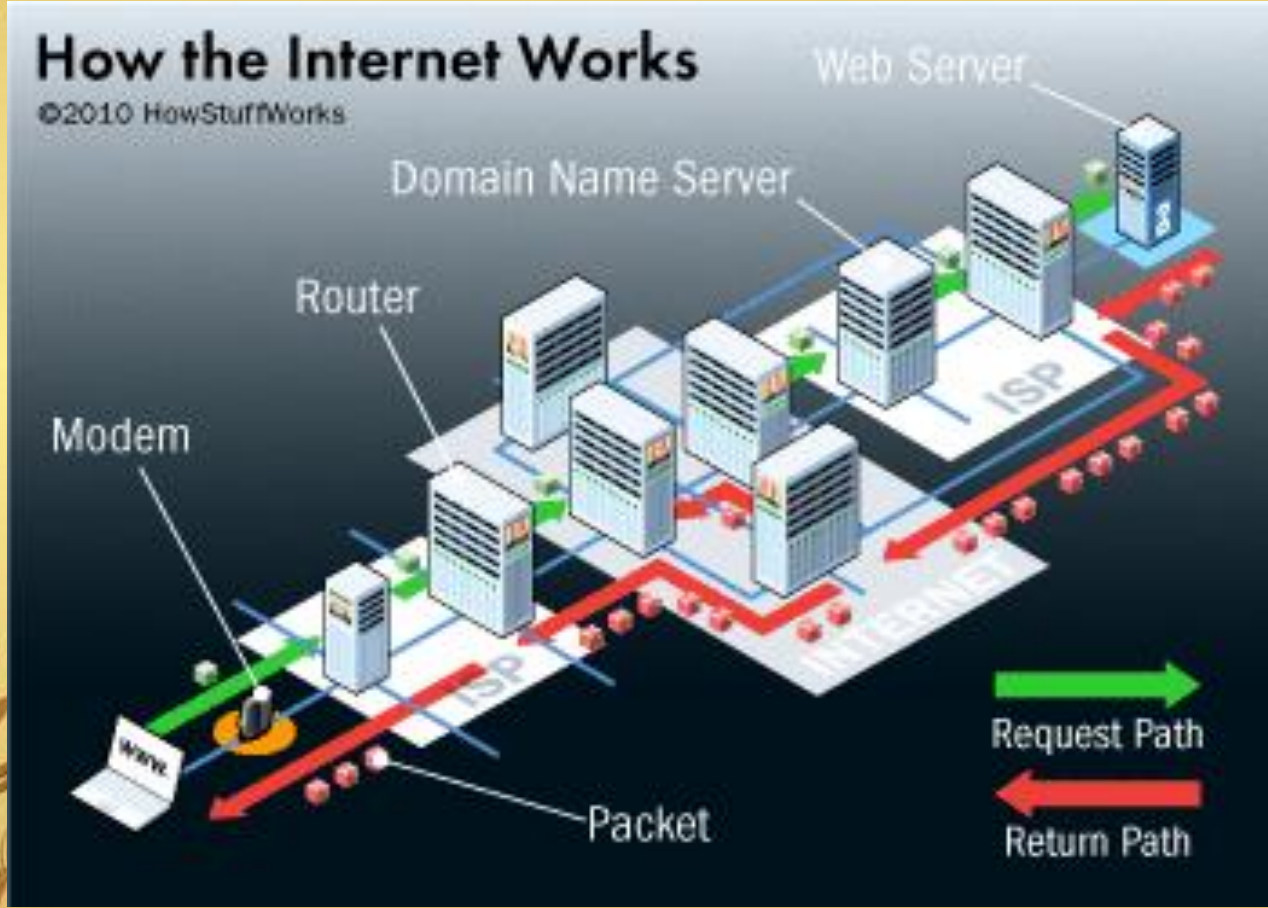- "http"   - transfer protocol
- "www"   - server name
- "dpbscollegeanoopshahr"   -second-level
                                                          domain name
- "org"   -top-level domain name
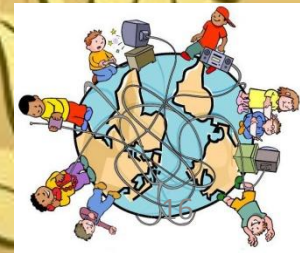- "Bed"   -directory name
- "Faculty-Of-Education"-file name
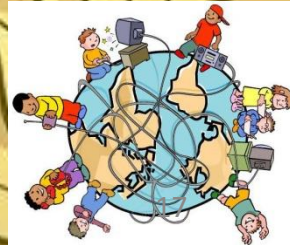- "html"   -file type

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How does the Internet work?

Courtesy: howstuffworks

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Conclusion

The Internet is a global network of billions of computers and other electronic devices. With the Internet, it's possible to access almost any information, communicate with anyone else in the world, and do much more. There are many things you can do on the Internet. Email is one of the oldest and most universal ways to communicate and share information on the Internet, and billions of people use it. Social media allows people to connect in a variety of ways and build communities online. There are thousands of ways to keep up with news or shop for anything online. You can pay your bills, manage your bank accounts, meet new people, watch TV, or learn new skills. You can learn or do almost anything online.

THANK YOU..

Dr. S. K. Singh