Evolution of the Internet

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* Internet blew up in 1990’s
  + Commercial use ban was lifted
  + Computers became more affordable
  + 0 to 70 percent change in computer use from 1995 to 2022
* GUIs are stored on running web servers connected to the internet
* ICANN – International Corporation for Assigned Numbers & Names
  + Coordinates the assignment of domain names, IP addresses, and protocol parameters and port numbers
* Intranet
  + A private network contained within an organization used to share information and resources among coworkers
* Extranet
  + A private network that securely shares part of an organization’s information or operations with external partners
* Accessible Website
  + Provides accommodations for users with visual, auditory, physical, and neurological disabilities
  + Usually, the bottom areas of websites are to help people who may struggle with modern looking, visual websites
* Universal Design (UD)
  + Consider all the kinds of users that are going to be accessing your website
* LAN – Local Area Network
  + Building, Home, group of buildings
* WAN – Wide Area Network
  + Public communications, big area of connection
* Client-Server Model
  + Client = requests data from server
  + Server = fulfills the request and transmits the results to the client
    - Need to always be ready to work
* MIME Type = Multi-Purpose Internet Mail Extension
  + Set of rules that allow multimedia documents to be exchanged among different computer systems
  + Standardizes information exchange
* Internet Protocols
  + FTP – File Transfer Protocol
  + Email Protocol
    - Sending = SMTP Simple Mail Transfer Protocol
    - Receiving
      * POP (POP3) Post Office Protocol
      * IMAP Internet Mail Access Protocol
  + HTTP – Hypertext Transfer Protocol
    - Set of rules for exchanging data on the web
    - Web browsers send HTTP requests for web pages and their files
    - HTTPS combines HTTP with a security and encryption protocol
  + TCP/IP Transmission Control Protocol/Internet Protocol
    - Official communication protocol of the Internet
    - Have different functions that work together to ensure reliable internet use
    - TCP breaks up data into units called packets
    - IP routes a packet to the correct destination
* IP Addresses
  + Each device connected to the internet has a unique IP address
  + IP address = 4 groups of numbers called octets
    - Ex. 216.58.214.164 is Google
* Domain Names
  + Locates entities on the internet
  + Divides the Internet into logical groups and understandable names
  + IP addresses have associated domain names
* URL – Uniform Resource Locator
  + Identifies a resource on the Internet which represents the network location of a resource such as a web page
* TLD – Top-Level Domain Name
  + Right most part of the domain name
  + Ex. .com, .org, .gov, .net
  + Country codes as well, .tv, .ws, .au, .jp
* DNS – Domain Name System
  + Associates domain names with IP addresses
* Markup Languages
  + SGML – Standard Generalized Markup Language
  + HTML – Hypertext Markup Language
    - Set of markup symbols placed in a file intended for display on a website
  + HTML5.2 is the newest version of HTML