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Section 1

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Questions:

* History of Internet [The evolution]
* View the 5 – 10 popular websites of your choice from web archive URL and put your observation and assessment
  + Web Archive : [Link](https://web.archive.org/)
* List 5 website each on the 12 categories you learned
  + Try to view their look in different years web archives
* What are the guidelines for evaluating the value of a Web site? Try to evaluate 2-5 websites based on the guideline and put your judgment

# The Evolution of the Internet

The internet is a system architecture which allows various computer networks all over the world to share information and communicate. In the few decades of its existence, it has revolutionized the ways people communicate over long distances. However, before the internet came about to get to its current state, the constituting networks were the most advanced ways of communicating in the 1950s and early 1960s. These networks were only capable of communicating over short distances and served specific purposes. These first computer networks included the likes of the airline reservation system -SABRE and the command-and-control system for defence -AUTODIN I. By the early 1960s computer manufacturers had begun to use semiconductor technology in commercial products, and both conventional batch-processing and time-sharing systems were in place in many large, technologically advanced companies. Time-sharing systems allowed a computer’s resources to be shared in rapid succession with multiple users, cycling through the queue of users so quickly that the computer appeared dedicated to each user’s tasks despite the existence of many others accessing the system “simultaneously.” This led to the notion of sharing computer resources (called host computers or simply hosts) over an entire network. Host-to-host interactions were envisioned, along with access to specialized resources (such as supercomputers and mass storage systems) and interactive access by remote users to the computational powers of time-sharing systems located elsewhere. These ideas were first realized in ARPANET, which established the first host-to-host network connection on October 29, 1969. It was created by the Advanced Research Projects Agency (ARPA) of the U.S. Department of Defense. ARPANET was one of the first general-purpose computer networks. It connected time-sharing computers at government-supported research sites, principally universities in the United States, and it soon became a critical piece of infrastructure for the computer science research community in the United States. Tools and applications—such as the simple mail transfer protocol (SMTP, commonly referred to as e-mail), for sending short messages, and the file transfer protocol (FTP), for longer transmissions—quickly emerged. In order to achieve cost-effective interactive communications between computers, which typically communicate in short bursts of data, ARPANET employed the new technology of packet switching. Packet switching takes large messages (or chunks of computer data) and breaks them into smaller, manageable pieces (known as packets) that can travel independently over any available circuit to the target destination, where the pieces are reassembled. Thus, unlike traditional voice communications, packet switching does not require a single dedicated circuit between each pair of users.

The name ARPANET was used for all sorts of communications between computers until 1982; which is when the name was changed to “Internet” to represent the world wide communication between computers- not to be confused with “internet” which just refers to local connections. Even though the Internet offered a means of communication reliable at the time, establishing that very connection required much effort not to mention it was not human-friendly as it required the IP-address (a combination of numbers that points to a specific computer on the internet). This problem was solved in 1984 when the DNS servers came into action. The DNS servers mapped the IP-address from an easy to remember domain name.

Following the experimentations in linking a commercial electronic mail (e-mail) service in 1988, Tim Berner Lee prepared a proposal for the World Wide Web(WWW) to convince CERN that a global hypertext system was in their best interest. After the commercialization of the Internet, the WWW was first integrated into an application called Mosaic, the first graphical web browser made in 1993 at the University of Illinois. Mosaic, through its “point-and-click” interface, simplified access, retrieval, and display of files through the Internet.

Following the commercialization of the Internet, numerous web services started to emerge over the years. Some of the more popular web services included:

* E-commerce services such as eBay and Amazon
* Webmail services such as Hotmail
* Search engines such as Gopher and Google
* Wikipedia, Facebook, Youtube, Skype, Hulu and many more web services

# References

A timeline on the History of the Internet - <https://www.behance.net/gallery/6310935/History-of-the-Internet-Infographic>

Internet | Description, History, & Facts | Britannica - <https://www.britannica.com/technology/Internet>