

ADDIS ABABA UNIVERSITY

ADDIS ABABA INSTITUTE OF TECHNOLOGY

CENTER OF INFORMATION TECHNOLOGY AND SCIENTIFIC COMPUTING

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# Introduction

# History and evolution of the internet

The origin

As it is known internet was never used in the late 1960s but the idea of this global computer network was first visualized in 1962 by J.C.R. Licklider a computer scientist at MIT. He later shared his idea with U.S. Department of Defense Advanced Research Project Agency (ARPA). Leonard Kleinrock, Thomas Merrill and Lawrence G. Roberts worked on the packet switching theory and later in 1969 the first wide area computer network became a reality which was funded by ARPA. In 1973, Robert Kahn and Vinton Cerf collaborate to develop a protocol for linking multiple networks together. This later becomes the Transmission Control Protocol/Internet Protocol (TCP/IP), a technology that links multiple networks together. Then Robert Metcalfe develops a system using cables that allows for transfer of more data over the network. He names this system Alto Aloha, but it later becomes known as Ethernet. And later on in the same year University College of London (England) and Royal Radar Establishment (Norway) connect to ARPANET and the term Internet was born.

Globalization of the internet

Tom Truscott and Steve Bellovin develop a Unix-based system for transferring data over phone lines via a dial-up connection. This system becomes USENET.  In 1982, the PhoneNet system is established and is connected to ARPANET and the first commercial network, Telenet. This action made internet accessible and allowed email communication between many nations of world. In 1981, Metcalfe’s company 3Com announces Ethernet products for both computer workstations and personal computers; this allows for the establishment of local area networks (LANs). And in 1983, the Domain Name System was established this feature was for naming websites like .edu, .gov, .com, .mil, .org, .net. This feature made the website names to be easily remembered and also help in managing as the number of internet users increase. In 1990, ARPANET is decommissioned. Tim Berners-Lee and his colleagues at CERN develop hypertext markup language (HTML) and the uniform resource locator (URL), giving birth to the first incarnation of the World Wide Web (WWW). A watershed year for the internet comes in 1995: Microsoft launches Windows 95; Amazon, Yahoo and eBay all launch; Internet Explorer launches; and Java is created, allowing for animation on websites and creating a new flurry of internet activity, Google was founded in 1998, the first internet virus was also discovered in 1999.

The beginning of the new century marks a great development and accessibility of the internet all over the world. As Google took over the market of the search engine, Face Book, YouTube and other social medias immerge internet become part of our daily life and the world seemed a small village. These days much of our life depends on this network like in banking, education, shopping etc.

What’s next?

The internet we see in these days was never created in a single day nor by a single person, it’s not certain what will happen next, nobody knew it would be like this. But what is certain is that it will keeping on growing as more and more things (IOT) gets involved with the internet.

# Types of websites

Websites have different use and goals in which they were originally made to achieve. Depending on these things they can be classified into 12 distinct types. They are:

1. **Social Network: -** is a type of website that allows people to communicate, share their experiences and interact with the world. Below are some examples.

|  |  |  |
| --- | --- | --- |
| **Name** | **URL** | **Active users in 2020** |
| FaceBook | <https://www.facebook.com/> | 2,230,000,000 |
| YouTube | <https://www.youtube.com/> | 1,900,000,000 |
| Instagram | <https://www.instagram.com/> | 1,000,000,000 |
| Twitter | <https://www.twitter.com/> | 336,000,000 |
| Pinterest | <https://www.pinterest.com/> | 200,000,000 |

1. **News: -** new broadcasting websites. Here are some:

|  |  |  |
| --- | --- | --- |
| **Name** | **URL** | **Monthly visitor in Feb 2020** |
| Yahoo News | <http://news.yahoo.com/> | 175,000,000 |
| Google News | <http://news.google.com/> | 150,000,000 |
| HuffngtonPost | <http://www.huffingtonpost.com/> | 110,000,000 |
| CNN | <http://www.cnn.com/> | 95,000,000 |
| New York Times | <http://www.nytimes.com/> | 70,000,000 |

1. **Educational websites: -** are types of websites that are built for education. They can be online courses or a one time learning materials.

|  |  |  |
| --- | --- | --- |
| **Name** | **URL** | **No. of courses they offer** |
| Edx.org | <https://www.edx.org/> | 1,900+ |
| Udemy | <https://udemy.com> | 55,000+ |
| Udacity | <https://www.udacity.com/> | 200+ |
| Brilliant.org | <https://brilliant.org/> | 60+ |
| Skillshare | <https://www.skillshare.com/> | 29,000+ |

1. **Portal: -** a portal allows users to connect with one another and find content that is relevant with ease and simplicity. Many companies throughout various industries are employing a portal platform. These are some of the examples:

|  |  |  |
| --- | --- | --- |
| **Name** | **URL** | **Type of organization** |
| West Bend | <https://www.liferay.com/resource?title=west-bend> | Agent and Customer Portal |
| AvMed | <https://www.liferay.com/resource/avmed> | Patient portal |
| Grants.gov | <https://www.liferay.com/resource/grants-gov> | Governmental portal |
| AAiT portal | <http://www.aait.edu.et> | University portal |
| Coach | <https://www.liferay.com/resource/coach-case-study> | Employee collaboration portal |

1. **Business/marketing: -** are websites that are designed to host information about a company or do direct business through the website itself like shopping and the like.

|  |  |  |
| --- | --- | --- |
| **Name** | **URL** | **Type of business** |
| The Cunningham Team | <http://www.greenvillescrealestate.net/> | Real Estate |
| htmlBurger | <https://htmlburger.com/> | Web Design Agency |
| Native Union | <https://www.nativeunion.com/?ref=ecommdesign> | E-commerce business |
| Le Garade | <https://www.legaragebistrosausalito.com/> | Restaurant business |
| Bergmeyer | <https://www.bergmeyer.com/> | Architecture firm |

# Guidelines for evaluating a website

For a person seeking information the source of the information must be reliable and up-to-date. But since anyone can create a website there must be a quality control standard. Using the following five criterias listed below we can examine a website and assure the quality.

* **Accuracy: -** the page must list the owner or the institution that published it and provide a way to contact them.
* **Authority: -** the page must list author’s credentials and its domain is preferred.
* **Objectivity: -** the page must provide accurate information with limited advertising.
* **Currency: -** if the page states that it is updated regularly it must do accordingly.
* **Coverage:** - if the page can be used properly not limited to fees, browser technology, or software requirement.

Based on the above criterias here are some demonstrations:

* Addis Ababa Institute of Technology official website
* Accuracy - its ownership is known and the contact information is well defined.
* Authority - its author’s credentials is listed and it has a proper domain [www.aait.edu.et](http://www.aait.edu.et).
* Objectivity - its objective is clear and well designed to do its job.
* Currency - the pages are not up-to-date as they were designed to be. Some information doesn’t reflect the current status of the institution.
* Coverage - it is challenging to use it from a mobile device and it is not accessible outside of the local area network when it was supposed to be accessible from anywhere just like any other portals.
* Live Score :- a web site for sport news
* Accuracy - its ownership it not defined but there is a contact page that is made clearly visible and is very functional.
* Authority - author’s credentials is not listed and it has a .com domain.
* Objectivity – it has a clear objective, easy to use and very limited advertisement pop ups that will not disturb users.
* Currency – its contents are up-to-date has it is mandatory for a news websites.
* Coverage – contents are available and free to get without any challenge.