**History of the internet**

The internet is a massive network of networks that connects millions of computers together globally and any two computers can communicate as long as they both are connected to the internet. Nowadays the internet is used for communication, sharing information, gaining knowledge, entertainment and many other purposes.

The internet was not invented by a single person at once; instead it evolved over time and many scientists, programmers and engineers contributed their part to make it the way it is now. The internet got its start over 50 years ago when computers were the size of one room. It was used by the US government as a weapon in the cold war. The military was concerned that if an attack was made on the telephone network by the Soviet Union the whole network would be destroyed and long-distance communication wouldn’t be possible.

In 1962 a scientist named J.C.R Licklider proposed a solution to this problem which was a network of computers that could talk to one another. In 1965 another scientist named Kleinrock developed a way of sending information from one computer to the other, which is called ”packet switching”. In packet switching data is broken down into small blocks known as packets and takes different routes to get to its destination. In 1969 the first ever message was sent from one computer to another through the government’s computer network known as ARPAnet. The first computer was located in a lab at UCLA and the second computer was located at Stanford. The message that was sent was “LOGIN” but it crashed the network and the message received by the computer at Stanford was “LO”. By the end of 1969 only 4 computers were connected to the ARPAnet then in 1971 the University of Hawaii’s ALOHAnet was added, and two years later networks of London’s University Collage and the Royal Rader in Norway were added. After that various networks from different parts of the world were added and it started to become difficult for them to integrate into a single network.

In 1971 a computer scientist named Vinton Cerf came up with a way for the computers in mini-networks to communicate with one another in a virtual space. He called this invention “Transmission Control Protocol” or TCP later he added an additional protocol called “Internet protocol” this changed the name to TCP/IP. IN the 1980’s scientists used this protocol to send data back and forth. In 1983 Paul Mockapetris invented DNS or domain name system which is like a phonebook of the internet that maps domain name to IP address which allows us to search for sites using their domain names.

In 1991 a computer programmer named Tim Berners-lee invented the World Wide Web. This was not just a way to send data from place to place but it was also a web of information that was accessible to anyone on the internet. In 1992 the first browser with graphical interface called ERWISE was created then In 1993 MOSAIC was created by a group of students at the University of Illinois. Mosaic had a user friendly interface and made surfing the web very popular, its name was later changed to NETSCAPE. When the web started being used for commercial purposes companies started to set up their websites and some entrepreneurs started to use the internet to sell goods. The first transaction made on the web is order to the pizza hut. After that different search engines started being introduced, the popular search engine Google was invented in 1998 by two computer scientists named Larry Page and Sergey Brin. In recent years different social networking sites have been introduced and these have made people even more connected.

**Types of websites**

There are different categories of websites depending on their purposes. Here are the different type’s websites with some examples:

**Portal:** is a website that brings information from various sources together. It provides a single access point to a lot of information. It is a personalized and customized library.

* Addis Ababa institute of technology portal: <https://portal.aait.edu.et> – it is AAit’s students portal that is used to to check grades and to register courses online.

**News:** is like an online newspaper that gathers information about happenings and events that are happening recently. A News Site can still use News Reporters, or journalists, to provide them with the news. They can also use information that was submitted by the users after validating it. A news website is a very fast platform for news since anything posted is immediate and fresh and can be updated.

* Yahoo News : <http://news.yahoo.com/-> this is a news website that was launched on august 1996 contains news that came from different news sources like BBC, CNN Associated Press and other news services.
* CNN : http://www.cnn.com/- CNN was the first television channel to provide [24-hour news coverage](https://en.wikipedia.org/wiki/24-hour_news_cycle) and was the first all-news television channel in the United States. CNN launched its website, CNN.com (initially known as CNN Interactive), on August 30, 1995. The site attracted growing interest over its first decade and is now one of the most popular news websites in the world.
* Washington post : <http://www.washingtonpost.com-> the website of the well known American daily newspaper Washington post.
* NBC News : http//www.nbcnews.com/ - it is featured by NBC , American broadcast television network
* BBC News : http://news.bbc.co.uk/-  contains international news coverage, as well as British, entertainment, science, and political news.

**Informational:** is a website with a purpose of providing detailed information about a specific topic

* WHO : http:// : [who.int](http://who.int/)/- it is the official website of world health organization.
* Stack overflow: http: //[stackoverflow.com](http://stackoverflow.com/)/-is trusted online community for developers to learn and share their knowledge.
* Guinness world records : http:// [www.guinnessworldrecords.com/-](http://www.guinnessworldrecords.com/-) the Guinness world records official site that contains ultimate record breaking facts and achievements.
* CNET : http:// [www.cnet.com/-](http://www.cnet.com/-) is the world’s leader in tech product review, news, prices forums, videos and more.
* W3Schools : http:// : [www.w3schools.com/](http://www.w3schools.com/) - is a developers site with tutorials and references on web development languages like HTML, CSS, JavaScript, Pyhton and others.

**Business/Marketing:** is an integral part of a larger marketing plan. A website is usually the cornerstone of an online marketing plan, providing a presence for a business.

* Forbes : <http://www.forbes.com/-> the website for the weakly American business magazine.
* Financial Times : [http://www.ft.com/-](http://www.ft.com/-%20)  the website of one of the world’s leading news organizations that provide a broad range of information, news and services for the global business community.
* Fortune : <https://fortune.com/> -is owned by an American multinational business magazine headquartered in new york city.
* Business Insider : <http://www.businessinsider.com/-> is an American financial and business news website founded by the German publishing house Axel Springer SE in 2009.
* AllBusiness : <http://www.allbusiness.com/> - provides business information and resources for small businesses.

**Educational:** have contents that act as a tool to enhance learning. These websites try to make learning process entertaining and attract students. Some examples of these websites are:

* Udeny : <https://www.udemy.com/> - is an online learning and teaching marketplace with over 100000 courses and 24 million students. It offers both paid and free courses.
* Khan Academy : <https://www.khanacademy.org/> - a non-profit educational organization that provides free video tutorials and interactive exercises. The **Academy's** declared mission is “changing education for the better by providing a free world-class education to anyone anywhere.”
* Edx : <https://www.edx.org/> -is a massive open online course provider. It offers courses from the world’s best universities and organizations.
* Coursera : <https://www.coursera.org/> - is an American online learning platform founded in 2012 by Stanford professors Andrew Ng and Daphne Koller that offers massive open online courses (MOOC), specializations, and degrees.
* Stanford online : <https://www.edx.org/> - offers students access point to Stanford’s extended education and lifelong learning opportunity around the world.

**Entertainment**: are websites that contain movies, songs, fashion, celebrity news and other information that keeps its users up to date with the quickly changing entertainment world.

* Netflix : https://www.netflix.com/
* ESPN : http://espn.go.com/
* TMZ : http://www.tmz.com/
* Funny or die : http://www.funnyordie.com/
* Rolling stone : http://www.rollingstone.com/

**Advocacy:** are websites that aim to influence decisions within political, economical, environmental or social institutions.

* Human Rights watch : https://www.hrw.org
* Greenpeace <http://www.greenpeace.com>
* Sierra Club <http://www.amnesty.org>
* Amnesty International <http://www.amnesty.org>
* Inforum Michigan <https://inforummichigan.org>

**Blog:** is a websites that is regularly updated and it can be run by a single person or a small group of people. It is usually written in a laid back style and the content can be about any topic chosen there is no limit.

* Huffington Post : http://www.huffingtonpost.com/
* Chocolate and Zucchini : http://www.chocolateandzucchini.com/
* Techcrunch : http://www.techcrunch.com/
* Kottke : http://www.kottke.org/
* Treehugger : http://www.treehugger.com/
* Chez Pim : http://www.chezpim.typepad.com/
* The Sartorialist : http://www.thesartorialist.blogspot.com/
* Jezebel : http://www.jezebel.com/
* Mashable : http://www.mashable.com/

**Wiki**: is a server program that allows users to collaborate in forming the content of a Web site. A wiki Web site operates on a principle of collaborative trust. The simplest wiki programs allow users to create and edit content. More advanced wikis have a management system that allows a designated person to accept or reject changes.

* Wikitravel : https://wikitravel.org/en/Main\_Page
* Wikihow : https://www.wikihow.com/Main-Page
* Wikibook : https://en.wikibooks.org/wiki/Main\_Page
* Gamepedia : https://www.gamepedia.com/
* Wikipedia : http://www.wikipedia.org/

**Social:** A social networking site is an online platform that allows users to create a public profile and interact with other users on the website. Social networking sites usually have a new user input a list of people with whom they share a connection and then allow the people on the list to confirm or deny the connection. After connections are established, the new user can search the networks of connections to make more connections.

* Facebook : http://www.facebook.com/
* Tumblr : http://tumblr.com/
* Instagram : http://www.instagram.com/
* Twitter : http://twitter.com/
* LinkedIn : http://www.linkedin.com/
* Flickr : http://www.flickr.com/
* Pinterest : http://pinterest.com/

**Content Aggregator :** A content aggregator is an individual or organization that gathers web content (and/or sometimes applications) from different online sources for reuse or resale. Content aggregator websites don’t produce their own content. Instead, they collect content from other websites around the Internet and “aggregate” it into one easy-to-find location.

* Alltop : https://alltop.com/
* Popurls : http://popurls.com/
* The web list : http://theweblist.net/
* Travel blogger Community : http://travelbloggercommunity.com/
* WP news Desk : http://wpnewsdesk.com/

**Personal:** Personal web pages are world wide web pages created by an individual to contain content of a personal nature rather than content pertaining to a company, organization or institution.

* Red Russak: <http://redrussak.com/> - this is the personal website of Red Russak. It is very different from many websites which makes it unique and unforgettable.
* [Ximena Vengoechea](http://www.ximenavengoechea.com/): <http://www.ximenavengoechea.com/> - this is a personal website of Ximena Vengoechea and it is a simple and clean design that helps her attract more people to her website.
* [Devon Stank](http://www.devonstank.com/): <https://www.devonstank.com/> - this is a personal website of Devon Stank. It has a simple and clear welcome screen and by just looking at this site we know a lot about his personality and his skills.
* [Adam Hartwig](http://www.adamhartwig.co.uk/): <http://www.adamhartwig.co.uk/-> this is Adam Hartwig’s personal website. It is very interactive and the bright colors used make it fun to explore more.
* [Ellen Skye Riley](http://ellensriley.com/): <http://ellensriley.com/> -this is Ellen Skye Riley’s personal website. Her website is unique and shows her skills as a Graphic Designer which can attract job opportunities for her.

**Evaluation of website from web archive**

1. Yahoo News(<http://news.yahoo.com/>)

On August 2000

* It is very populated and overwhelming because it has so many writing
* Everything seems rectangular shaped this is because each section seems to have a different background color.
* Most of the sentences are underlined and have large font which has some sense of disturbance
* Contains a few pictures
* The search bar is really small and found on the left side of the page
* It is center aligned and has a lot of empty space on both sides

On August 2001

* It is still center aligned but has taken more space.
* The navigation bar has been separated to two part on different lines
* It almost looks identical to the previous year’s web page

On August 2002

* It is less populated with words.
* It seems to be more organized and aligned in a relatively more clear way than before.
* The search bar has moved to the top and it is wider
* The different categories of news are listed on the left in a clear and organized manner.
* It is less rectangular more casual than the previous years

On August 2004

* It is less populated with words and the font of words got smaller
* It is almost similar with the 2002 version.

On August 2005

* The categories that were in the left have been moved to the top of the page
* The background color of the navigation bar has been changed to dark blue which makes the page more attractive.
* The words are no longer underlined and they have smaller size which makes much more attractive and less disturbing.
* The different background colors for each section have been removed which gives it a less rectangular look.
* It is still center aligned but has taken wider space
* The search icon has been emphasized by giving it a different background color and has taken a wider space which looks nice.

On August 2006

* The navigation bar has come back to the left and it has been listed in top down style which is less attractive. The navigation has been classified to primary and secondary navigation options.
* The whole page has a white background color

On August 2008

* It has videos to the right of the page
* It is populated

On August 2010

* The background color of the different sections has been matched in a way that is attractive and settle.
* There is less writing or less description of the different topics
* Each news is listed with a picture and a describing topic and it has a link for more details.
* It is still center aligned but it almost takes up the whole width. There is a small place left on the sides.

On August 2012

* The search bar has been moved above the navigation bar
* The back ground color for the section that contains the logo together with the search bar has been changed to blue and it looks nice.
* The description on each topic has been minimized and highlighted on the pictures.
* The page takes up the whole space which is a major change from previous years.

On August 2014

* The navigation has been moved back to the left side
* The contents are organized and people can look further into the topic they are interested in by pressing the topic

On December 2016

* The navigation bar has been moved to the top of the page
* It is even more organized in a way that takes up a small place and looks attractive.
* There is contact links on the top to their Facebook, twitter, tumblr and instagram pages.

On March 2020

* The logo and the search icon have been aligned in the same line on the top with the navigation bar below it. There two lines have background color of white which makes the page look simple.
* There is a visible gap in between two portions.
* The images have slightly round edges that make the page more appealing.
* It displays news about related topics from other sources like time, CNN, USA today and Washington post.

1. Pinterest( <http://pinterest.com>)

On February 2010

* The page has an overall white background color .
* everything seems to be listed from top to bottom one element after the other without any styling effects.
* All the navigation options and buttons are underlined and blue which shows that there have been hyperlinked. It is not pleasant to look at.
* The navigation is listed on the top and there is a search bar below it.
* It has no image.

On February 2011

* It has a navigation bar at the top in the form of unordered list and it is nested to contain another unordered list inside each category.
* It contains one image under the search bar that shows the visual page that is rendered when you search for something on Pinterest.
* The hyperlinked words are still blue and underlined.

On February 2012

* The page has more visual elements compared to previous years.
* The search bar has been moved to the top of the page.
* The logo became red more appealing to look at.
* Each image is placed in a compartment like boxes with some description below the image. Then below that there is a line to show the number of likes, comments and repins the image got and some of the comments are displayed.
* The background color of the page is light gray and each compartment has white background color which makes it attractive.
* There is a navigation bar right on the top of the page. On the line below that the search bar, the logo and the about and login buttons are placed.

On February 2013

* It has a structure almost similar to the previous year.
* There is a language choosing drop down button before the about button.

On February 2014

* The actual home page is blurry and in the background.
* On the small page in the front there is an option to sign up or log in into a pinterest account in order to access the contents of the home page.
* The background of the small page in the front is a picture that is appealing.
* We can explore the About Pinterest , Team and privacy and other links placed at the bottom before logging in or signing up for the page.
* It displays that there are more than 25 billion pins to look at and that creating an account takes 45 seconds.

On January 2015

* The background image on the login page has changed.
* The number of pins to explore has changed to more than 30 billion and the time it takes to sign up has been minimized to 15 seconds.
* Most of the structure remains the same with the previous year.

On February 2016

* The background image on the login page has changed.
* The number of pins to explore has grown to more than 50 billion.
* On the navigation there are new pages like iPhone App and Android App that has a description about Pinterest mobile app and download link.

On January 2017

* The image on the login page has been moved to the left and the words text boxes have been moved to the right with a white background color.
* The log in button is separately found on the right top corner of the page.

On March 2020

* The login page is clearer and has less contents and it has white background color.
* After creating an account and logging in the user can choose the categories of contents they are interested in. And they can save the pictures they are more interested in.
* The pictures have round edges and are presented in a way that is eye catching.

1. Youtube (<http://www.youtube.com>)

On april 2005

* It had a navigation bar at the top of the page.
* There is a text box to enter username and password and it has a login button.
* It has a dropdown to choose the user’s gender and preference of age
* It has different background colors on each section and the different sections have curved edges.

On april 2006

* The navigation bar has been improved and has been divided into catagories
* It has a recently viewed section below the navigation bar
* It has a search box on the top .
* It is still divided into different sections with different background color and curvy edges.
* The words that are hyperlinked are blue and underlined

On april 2007

* The navigation bar has become more appealing and clear
* The background color is mostly white and some light blue which gives it a simpler look than the previous years.
* Links are still blue and underlined.
* The videos have a rating next to them with red stars.

On april 2008

* The color combination is nicer.
* It has a login form on the right side.
* The search box is moved below the navigation bar.
* It has an additional navigation bar of featured, most viewed, most discussed... etc

On march 2009

* The navigation bar and the search box are on the same line.
* An upload button has been added to the page.
* The hyper linked words are still blue but not underlined any more.

On april 2010

* The page has a simpler and more uniform look.
* The page has a “recommended for you” feature that recommends videos for users based on their view history.
* It also has a “videos being watched now” feature.

On april 2011

* It has an advertisement for a movie on the front.
* It has personalized video recommendations.
* Each section for a single video got smaller which allows more videos to be displayed in small place.
* The videos are grouped in to different categories like Entertainment, Music, News and politics etc.

On April 2012

* It still has an advertisement section at the front.
* The background color of the whole page has been changed to gray and different sections have different background colors like blue, brown, black etc.
* The navigation bar has been moved to the left and has a black background color. It has a block type style for each category which is pleasant to look at.
* The color of all the words is the same in the same section. The text color on the navigation bar is white since the background is black and the text color else where is black.
* Hyperlinks are no longer underlined or blue which gives the site a more sophisticated look.

On april 2013

* The background color of the site is a nice combination of dark red on some sections and white on most sections.
* The navigation bar is still on the left but it has a white background.
* Under the navigation bar the user can save the channels they are interested in.

On April 2014

* It is simpler and nice to look at.
* Apart from the navigation bar in the left each row contains videos that belong to the same category.

On March 2015

* There hasn’t been much change from the previous year.

On May 2017

* The row of categories starts with the trending category.
* The upload button’s text was replaced by an upload icon.

On April 2018

* The dark red color used on some sections of the page changed to a bright red color which makes the page more eye catching.

On march 2020

* It has a navigation bar at the top left and list of channels the user subscribed to in the bottom.
* It is not categorized anymore and it usually lists related videos to the user’s view history.
* The pictures for each video have gotten bigger so less list of videos on each row.

1. WikiHow(<https://www.wikihow.com/Main-Page>)

On March 2005

* It doesn’t have images.
* It has a search box under the logo of the page.
* It has a statement that describes the purpose of the site.
* It has links that are blue and underlined.
* It is simple and two rows are added in a table format.
* It doesn’t have much of a styling element added to it.
* It has footer with information about the site and other components.

On April 2006

* More icons have been added.
* It has a navigation bar below the logo of the page.
* The links are still blue but not underlined.

On April 2007

* An image is added to the page.

On May 2008

* Its logo is changed to a simpler one.
* The search box has been moved to the top right side of the page and it is smaller.
* The navigation bar has been modified to look more round on the edges and it has light blue background color which makes it more appealing.
* The background color is half white half light blue it gives it a good appearance.

On April 2009

* The search box got wider and became more visible.
* Under the search button an advertisement for a wikihow mobile app is added.

On March 2010

* The logo looks a lot nicer.
* The navigation bar has been moved to the right of the logo and joined with the search box.
* The navigation bar got bigger and has a more appealing shape.
* The page contains images and the components are arranged side to side in a more appealing manner.
* It had the same appearance for the next three years.

On May 2014

* The search box moved to the left and the navigation bar is to the right.
* More visual description is added to the content
* The page looks simpler and is easy to navigate.

On March 2016

* The search box is changed to a more appealing style.

On March 2017

* Animated pictures are mostly used to illustrate the exact description of the content.

On March 2020

* In addition to the search box at the top, the page has a search box in the middle.
* It has a category navigation bar at the bottom right side that is listed vertically.
* It contains featured videos on how to do things at the bottom of the page just above the footer.

1. Khan Academy(<https://www.khanacademy.org/>)

On March 2007

* The page is center aligned and takes up a small portion of the whole page.
* It has a simple navigation bar at the top right of the page.
* It has a very simple structure containing a picture on the left, some description of the page in the middle and a sign in option to the right.

On September 2008

* A simple footer is added at the bottom.
* More options are added to the navigation bar.

On May 2011

* The logo of the page is changed to by adding a tree.
* It has a search box at the top right of the page. The website didn’t have a search box in the previous years.
* It has contact information at the top of the page.
* The navigation bar is moved to the right and more styling effects are added to it.
* The page is still center aligned but takes up wider space than the previous years.
* It has more contents like videos, links, and others.

On May 2012

* The logo the search box and the navigation are placed on the same line at the top.
* The page is simpler and looks more attractive.
* It contains news and information about courses given on the website.

On august 2014

* The page has a blurred image as background which makes it more visual and attractive.
* The navigation bar is visible when the top part of the page is hovered.
* It has used more styling effects.
* It uses the scroll effect more as the page extends to a larger contain vertically.
* It uses the whole width of the page.

On june 2016

* It is very rich visually.
* It has a list of the courses that are available for students at different levels.
* It has a simple navigation bar to the right of the logo.
* It has a search icon and a dropdown at the left top corner where students can choose the subject they are interested in.
* It illustrates the learning process using pie charts and graphs.

On April 2018

* The navigation bar has a bright blue color and it changes its color when hovered on it.
* It has footer with a lot of information providing links and contact information.
* It has a language selection option on the footer of the page.

On March 2020

* The navigation bar at the top has a white background color.
* Most part of the page is white which gives it a simpler look.
* It has options for different types of participants in khan academy like students, teachers and parents.
* It has different graphical drawings and statements about the importance of education.
* The footer has a blue black color and contains links.

Guidelines for evaluating a website

There guidelines are more concerned about the contents of the website rather than the design.

1.Authority/Credibility: reveals whether the person or the institution that is responsible for the website has enough knowledge and qualification on that stated subject.

* The author should be known
* Sufficient contact information lake email, phone number and fax number should be provided

2. Purpose/Audience: the purpose of the information provided should be clear. This is whether the website is trying to inform, persuade, express personal opinion or entertain the audience. Some questions that should be asked are:

* Is the site organized and focused
* Check the domain of the site to see the purpose. For example if the extension is .edu it is an educational website.

3.Coverage/relevance: one author might write a comprehensive coverage of a topic and another might cover one aspect of that topic in depth. Some questions that should be asked are:

* Is the site comprehensive or selective?
* How deep is the topic explored?
* Compare the information on the site with other similar sites
* Do the links go outside its own page?

4. Currency/Timeliness: refers to how current the information on the site is and how often the site is updated. Some questions to ask are:

* When was the site created?
* When the site was last revised?
* Are the links on the site up to date?

5. Objectivity/Bias: the objective of the site must be clear. If the site contains some kind of bias it should admit it freely. Objective websites present information with a minimum bias.sme question to ask:

* Does the information try to sway the audience?
* Is the site trying to explain, inform, persuade, or sell something?
* is the information presented fairly (both pros and cons) or in a one-sided manner?
* Does the website promote a specific product, service or point of view?

6. Accuracy/Reliability: it is verifying the accuracy of the information on the website. Some questions to ask are:

* is the author affiliated with a known institution?
* Does the knowledge you already have of that topic make the information on the site seem accurate?  
  Does the text follow basic grammar and spelling rules?
* Is a bibliography or reference list included?
* Does the writing look amateurish?
* Have the facts been checked by someone other than the site's author or creator?

**Reference**

* HISTORY, <https://www.history.com/topics/inventions/invention-of-the-internet>, February28, 2020
* Noggin, [https://youtu.be/h8K49dD52WA, Life](https://youtu.be/h8K49dD52WA,%20Life) , February 29, 2020
* ThoughtCo. , <https://www.thoughtco.com/who-invented-google-1991852> , February 29, 2020
* eBizMBA , ebizmba.com/articles/news-websites, March 1,2020
* make a website, <https://makeawebsitehub.com/social-media-sites/> ,march 1 2020
* wp mayor, <https://wpmayor.com/6-best-examples-content-aggregator-websites/>, march 2 2020
* the muse, <https://www.themuse.com/advice/the-35-best-personal-websites-weve-ever-seen>, march 1,2020
* Best interview, <http://justinterview.blogspot.com/2013/10/webinformation-most-informative-websites.html> , march 1,2020
* Allbusiness, <https://www.allbusiness.com/15-great-business-websites-you-should-be-reading-regularly-104003-1.html> , march 2,2020
* Lifehack , <https://www.lifehack.org/articles/money/25-killer-sites-for-free-online-education.html> , march 1,2020
* All My Faves, <https://blog.allmyfaves.com/tv/top-25-entertainment-sites-the-best-of-online-entertainment/> ,march 2, 2020
* Advocacy websites, <https://www.csus.edu/indiv/k/kiddv/comssites/advocacy.html> , march 3, 2020
* The Guardian, <https://www.theguardian.com/technology/2008/mar/09/blogs> , march 1,2020
* Make use of, <https://www.makeuseof.com/tag/13-popular-wikis-that-actually-work/> , march 2,2020
* Wikipedia, <https://en.wikipedia.org/>, march 1,2020
* Wed archive, <https://web.archive.org/>, march 1,2020