# History of the Internet

## Introduction

The Internet has altered the computer technology and communications world overtime by providing a mechanism for information dispersal and revolutionized the medium for collaborative and interaction between individuals and their computers without giving regards to geographical location. Just like a new born baby does not stand upright with its legs and start walking and running right away like an adult, the Internet technology too had to grow up with in time from its infant stages to become a wide-spread information infrastructure that it is today.

## 1.2 Origin of the Internet

It would be really difficult to pin point the invention of the Internet and bring it down to single personnel, rather the Internet has had hand-prints of copious programmers, scientists and pioneers as well who have developed new features and technologies that would gradually merge to form this huge platform.

However, in 1962, J.C.R Licklider of MIT wrote a series of memos issuing and popularizing his “Intergalactic Network” propostion. He had in mind a globally interconnected set of computers through which data could be accessed from any place. This concept of Licklider was very much alike of what is now called the Internet.

Then shortly after, the idea of theoretical feasibility of communications using packets (Packet Switching) rather than circuits came along due to some computer scientists, which was a major step along the path towards computer networking. This method gave rise in transmitting electronic data effectively that would later become one of the major building blocks of the Internet.

And so, they gradually made the computers talk together when the first workable prototype of the Internet came in the late 1960s with the creation of ARPANET (Advanced Research Projects Agency Network). Funded by the U.S. Department of Defense, ARPANET used packet switching or packets to allow multiple computers to communicate on a single network.

The technology continued to grow in the 1970s after scientists Robert Kahn and Vinton Cerf developed Transmission Control Protocol and Internet Protocol, or TCP/IP, a communications model that set standards for how data could be transmitted between multiple networks.

ARPANET then incorporated this development in the beginning of the 1980’s and was further sprang up by fellow scientists to form the “Network of Networks”.

Shortly after that, the invention of the World Wide Web by Tim Berners-Lee in 1990 helped escalate the recognition of the Internet in advance.

The internet has now influenced its reach not only to the technical fields of computer communications but throughout society as we are heading towards an increased use of online tools in our everyday lives now more than ever.

# Popular websites observation over the years

## 2.1 The BBC News website journey over the past 20 Years

BBC News has come a long way to reach where it now and it has been updating and adding new features every time to enhance the ascetics of the layout and design, and add more content to its page.

Some of the major changes include:

* 1999 - Changing its old Blue banner with a red star to a Red header and more in line with “BBC News” which it is still known for.
* 1999 - The search bar has also moved to the top of the page.
* 2001 – More tabs were added to the site including a weather, world service and sports tab next to Home.
* 2003 – The website got wider horizontally than before and more stories could be seen with just a glance.
* They added the world map in the navigation.
* 2008 – The site got even wider and added exciting features like allowing video to be played from within the story pages for the first time.
* 2010 – The world map in the navigation was dropped and the site seems more appealing and easier yet with more news on the front page.
* They started using large headings with bolded text.
* The whole page use to be Organized in three columns, but in time these columns were reduced and have reached to the point where there is only one column and now the site uses full width to incorporate its contents.

## 2.2 YouTube over the years

The YouTube site has evolved greatly over the years from the beginning of 2005 where the website was very basic and there were barely any videos on the display. It was not very well designed and this is was the start. In 2006, the website was improved in its layout and it made navigation easier.

The logo was slightly changed in 2007 and the layout was yet again changed. And for the very first time Youtube live event was introduced which was a stream hosted by a variety of Youtubers.

They had the ‘Most viewed” and “Featured videos” changed were they had been showed.

In 2009, YouTube was made newer and more professional. It used bubble text and moved the "Home", "Videos", "Channels", and "Shows" tabs.

In 2010, the “Browse” and “Upload” buttons were placed. More annotations were added and they had the its loading bar changed. Youtube was immensely changed in 2012 where the titles of the videos were on the bottom of the video, also there was a new layout on the home page link.

Afterwards, the site started to be more appealing and added new contents every time with the “Home” and “trending” side by side. The left column made the site more accessible and easier to navigate through and it has reached where it is today.

## 2.3 Amazon Over the time

Amazon has been up and running for more than 20 years now and it a site it visited very frequently by users for online commerce.

Some major alterations include:

* 1997 – A left sidebar was introduced.
* 1998 – The search bar was introduced.
* 1999 – A right sidebar was added.
* The tabs included in this website were increasing from time to time.
* The tabs were reined in and the categories were moved to the left sidebar area and the amazon logo decreased to give some space.
* There were only tabs for the homepage, a personalized page of products called Your Store, and a link to all the product categories.
* 2008 - The site changed to a blue and orange color scheme, the orange from the smile in the logo.
* 2012 - Orange fonts were used prominently to show prices and bolded text with a grey background.

## 2.4 Twitter over the Years

Twitter's success has been rapid and since their launch in 2006 they've reached an active user base of more than 250 million people. Some of twitter's popularity is due to us being on it.

The initial website was very simple and didn’t have much aside the sign log in column on the right, the twitter header at the top, and some description up front. In 2007, the outside bar was colored light blue with the others staying the same from its initial page in 2006. In 2008, the log in column which initially was on the right side came to the center and the light blue background surrounding the center. They introduced the search bar and made a little enhancement on the twitter logo and moved up the sign in option to the right top corner. The little bird logo was also introduced right next to the header-Twitter. The search bar along with the Twitter logo was moved out of the center to the top left. In 2011, the they added the world map for a background of the site which would change over the years and it would take the full size of the background gradually as the years progress.

The website now has a solid color for a background on the right and a logo at the top with the sign in and log in form all together. The left side had a picture with some descriptions on the left and has become more simple and appealing over the years.

## 2.5 Skype and it journey

Skype's homepage has had major overhauls almost every year, and judging by the oldest version of their site, it certainly needed them.

Initially in 2003, the site was green with it’s greenish Logo at the top left and some descriptions at the bottom next to the log in and sign in form. In 2004, they had the color changed to Red with much of the things same as the year before. In 2006, the website was more enhanced and the color had been changed to blue. In 2007, the site has had a more organized tab and the website showed major improvements on what was written underneath. In 2008, the search bar and help tab was introduced on the right top corner with the Skype logo on the left top corner. Not much was changed in 2009 but in 2011 they brought the tabs next to the Skype logo. In 2013, the horizontal bar had a white background and the Logo and tabs written in blue. In 2015, the site was made simpler to access and only had a single white bar on the top. Underneath was a huge picture added as a background where some descriptions were written on it. Today the website had its ascetics enhanced and they have now dropped the blue and white theme to all white after they added the Microsoft logo at the left top corner.

# Websites of the 12 categories

# News Websites:

## Daily Mail Online( [www.dailymail.co.uk](http://www.dailymail.co.uk))

MailOnline is the website of the Daily Mail. A newspaper in the United Kingdom, and of its brother paper The Mail on Sunday. MailOnline is a division of DMG Media, part of Associated Newspaper Ltd.

## Al Jazeera([www.aljazeera.com](http://www.aljazeera.com))

Al Jazeera English is the Qatari pay television news channel owned by the Al Jazeera Media Network, headquartered in Doha, Qatar. It is the first English-language news channel website to be headquartered in the Middle East.

## France 24([www.france24.com/en](http://www.france24.com/en))

France 24 is a French state-owned international news television network based in Paris. Its channels broadcast in French, English, Arabic, and Spanish and are aimed at the overseas market, similar to BBC World News, DW, RT, TRT World and VOA.

## RT News([www.rt.com/news](http://www.rt.com/news))

RT (formerly Russia Today) is a Russian international television network, funded by the Russian government. It operates pay television channels directed to audiences outside of Russia, as well as providing Internet content in English, Spanish, French, German, Arabic and Russian

## Xinhua net([www.xinuanet.com](http://www.xinuanet.com))

Xinhua News Agency or New China News Agency is the official state-run press agency of the People's Republic of China. Xinhua is the biggest and most influential media organization in China, as well as the largest news agency in the world in terms of correspondents worldwide.

# 3.2 Social media websites:

## Twitter([www.twitter.com](http://www.twitter.com))

Twitter is an American microblogging and social networking service on which users post and interact with messages known as "tweets". Registered users can post, like, and retweet tweets, but unregistered users can only read them.

## Pinterest([www.pinterest.com](http://www.pinterest.com))

Pinterest, Inc. is an American social media web and mobile application company. It operates a software system designed to enable saving and discovery of information on the World Wide Web using images and, on a smaller scale, GIFs and videos.

## LinkedIn([www.linkedin.com](http://www.linkedin.com))

LinkedIn is an American business and employment-oriented service that operates via websites and mobile apps. Founded on December 28, 2002, it is mainly used for professional networking, including employers posting jobs and job seekers posting their CVs.

## Myspace([www.myspace.com](http://www.myspace.com))

Myspace is an American social networking website. From 2005 to 2008, it was the largest social networking site in the world. Myspace had a significant influence on pop culture and music and created a computer game platform.

## Instagram([www.instagram.com](http://www.instagram.com))

Instagram (IG) is an American photo and video-sharing social networking service owned by Facbook, Inc.

# 3.3 Portal websites:

## Zillow([www.zillow.com](http://www.zillow.com))

Zillow Group, Inc., or simply Zillow, is an American online real estate database company that was founded in 2006, and was created by Rich Barton and Lloyd Frink, former Microsoft executives and founders of Microsoft spin-off Expedia, and Spencer Rascoff, a cofounder of Hotwire.com.

## Tripx([www.tripx.com](http://www.tripx.com))

It is a tour guide that set the benchmark for travel and leisure tours by delivering quality and unparalleled experience to each of our clients.

## Energyjobline([www.energyjobline.com](http://www.energyjobline.com))

Energy Jobline has expanded to become the leading jobsite in energy and engineering jobs worldwide. We provide the latest [energy jobs](https://www.energyjobline.com/), [oil and gas jobs](https://www.energyjobline.com/oil-and-gas/), [renewable energy jobs](https://www.energyjobline.com/renewables/), offshore jobs and [power & nuclear jobs](https://www.energyjobline.com/power-and-nuclear/) worldwide. Energy Jobline also provides the latest news and developments across the energy industry. Read the latest [oil and gas news](https://www.energyjobline.com/careers/oil-and-gas/), [renewable energy news](https://www.energyjobline.com/careers/renewable-energy/) and [other](https://www.energyjobline.com/careers/) sector developments today.

## Indeed([www.indeed.com](http://www.indeed.com))

Indeed is an American worldwide employment-related search engine for job listings launched in November 2004. It is a subsidiary of Japan's Recruit Co. Ltd. and is co-headquartered in Austin, Texas and Stamford, Connecticut with additional offices around the world.

## AAiT (<https://portal.aait.edu.et/>)

It’s a site that brings the student and staff together to one place and makes things easier.

# 3.4 Educational websites:

## Khan Academy([www.khanacademy.org](http://www.khanacademy.org))

Khan Academy is a non-profit educational organization created in 2008 by Salman Khan with the goal of creating a set of online tools that help educate students. The organization produces short lessons in the form of videos. Its website also includes supplementary practice exercises and materials for educators.

## Udemy([www.udemy.com](http://www.udemy.com))

Udemy is an online learning platform aimed at professional adults and students, developed in May 2010. As of Jan 2020, the platform has more than 50 million students and 57,000 instructors teaching courses in over 65 languages. There have been over 295 million course enrollments.

## edX([www.edx.org](http://www.edx.org))

edX is a massive open online course provider. It hosts online university-level courses in a wide range of disciplines to a worldwide student body, including some courses at no charge. It also conducts research into learning based on how people use its platform.

## Udacity([www.udacity.com](http://www.udacity.com))

Udacity, Inc. is a for-profit educational organization founded by Sebastian Thrun, David Stavens, and Mike Sokolsky offering massive open online courses. According to Thrun, the origin of the name Udacity comes from the company's desire to be "audacious for you, the student"

## Coursera([www.coursera.org](http://www.coursera.org))

Coursera is an American online learning platform founded in 2012 by Stanford professors Andrew Ng and Daphne Koller that offers massive open online courses, specializations, and degrees.

# 3.5 Entertainment Websites:

## HBO([www.hbo.com](http://www.hbo.com))

HBO is an American premium television network owned by Home Box Office, Inc., a subsidiary of WarnerMedia Entertainment.

## Netflix([www.netflix.com](http://www.netflix.com))

Netflix, Inc. is an American media-services provider and production company headquartered in Los Gatos, California, founded in 1997 by Reed Hastings and Marc Randolph in Scotts Valley, California.

## IMDB([www.imdb.com](http://www.imdb.com))

IMDb is an online database of information related to films, television programs, home videos, video games, and streaming content online – including cast, production crew and personal biographies, plot summaries, trivia, fan and critical reviews, and ratings.

## Starz([www.starz.com](http://www.starz.com))

Starz is an American premium cable and satellite television network which serves as the flagship service of Starz Inc., which is ultimately owned by Lionsgate. Starz's programming features theatrically released motion pictures and first-run original television series.

## Tik Tok([www.Tiktok.com](http://www.Tiktok.com))

TikTok or Douyin is a Chinese video-sharing social networking service owned by ByteDance, a Beijing-based company founded in 2012 by Zhang Yiming. It is used to create short lip-sync, comedy, and talent videos. The app was launched in 2017 for iOS and Android in markets outside of China.

# 3.6 Informational Websites:

## CNET([www.cnet.com](http://www.cnet.com))

CNET, formerly Computer Network, is an American media website that publishes reviews, news, articles, blogs, podcasts, and videos on technology and consumer electronics globally.

## WHO([www.who.int](http://www.who.int))

The World Health Organization is a specialised agency of the United Nations that is concerned with world public health. It was established on 7 April 1948, and is headquartered in Geneva, Switzerland.

## Stack overflow([www.stackoverflow.com](http://www.stackoverflow.com))

Stack Overflow is a question and answer site for professional and enthusiast programmers. It is a privately held website, the flagship site of the Stack Exchange Network, created in 2008 by Jeff Atwood and Joel Spolsky. It features questions and answers on a wide range of topics in computer programming.

## Guinness World Records([www.guinnessworldrecords.com](http://www.guinnessworldrecords.com))

The Guinness World Records official **site** with ultimate record-breaking facts & achievements. Do you want to set a world record? Are you Officially Amazing?

## eHow([www.ehow.com](http://www.ehow.com))

eHow is an online how-to guide with many articles and 170,000 videos offering step-by-step instructions. eHow articles and videos are created by freelancers and cover a wide variety of topics organized into a hierarchy of categories.

# 3.7 Business/Marketing Websites:

## Forbes([www.forbes.com](http://www.forbes.com))

Forbes is an American business magazine. Published bi-weekly, it features original articles on finance, industry, investing, and marketing topics. Forbes also reports on related subjects such as technology, communications, science, politics, and law.

## Bloomberg([www.bloomberg.com](http://www.bloomberg.com))

Bloomberg L.P. is a privately held financial, software, data, and media company headquartered in Midtown Manhattan, New York City. It was founded by Michael Bloomberg in 1981, with the help of Thomas Secunda, Duncan MacMillan, Charles Zegar, and a 12% ownership investment by Merrill Lynch

## Business Insider by Pulse([www.pulselive.co.ke](http://www.pulselive.co.ke))

Business Insider is an American financial and business news website founded in 2009 and owned by the German publishing house Axel Springer SE. It operates 14 national editions and an international edition. Several national editions are published in local languages.

## Fortune([www.fortune.com](http://www.fortune.com))

Fortune is a global media organization dedicated to helping its readers, viewers, and attendees succeed big in business through unrivaled access and best-in-class storytelling.

## Event Marketer([www.eventmarketer.com](http://www.eventmarketer.com))

Event marketing is the experiential marketing of a brand, service, or product through promotional events. It typically involves direct interaction with a brand's representatives. It should not be confused with event management, which is a process of organizing, promoting and conducting events.

# 3.8 Advocacy Websites:

## Global Zero([www.globalzero.org](http://www.globalzero.org))

Global Zero is an international non-partisan group of 300 world leaders dedicated to achieving the elimination of nuclear weapons. The initiative, launched in December 2008, promotes a phased withdrawal and verification for the destruction of all devices held by official and unofficial members of the nuclear club.

## Mamaye(<http://www.mamaye.org>)

We used Drupal 7 to provide a responsive advocacy resource for a wide, diverse and globally significant campaign - utilising the Domain Access module to create separate ‘sites’ for each of the domains and Entity Translation for multilingual content.

## Trocaire(<http://www.trocaire.org>)

Trócaire already had an existing website, built using CMS Made Simple. Despite having decent hardware, and hiring specialized consultants, the site suffered from severe performance issues, and was not as flexible as they would have liked it to be. The decision was taken to switch to Drupal, but there was still the issue of migrating all the existing content, files and users to Drupal. Using the excellent Migrate and Table Wizard modules, created by Mike Ryan and Moshe Weitzman of Cyrve, this task was made much easier. Over 2000 pages, 500+ files, almost 600 taxonomy terms and close to 100 users were successfully migrated across.

## Active Living Research([www.activelivingresearch.org](http://www.activelivingresearch.org))

Active Living Research, a program of the Robert Wood Johnson foundation, needed a refreshed website to promulgate their stellar research into childhood obesity. The build included an upgrade from Drupal 4.x to 6 and the migration of their considerable research database. The site received the 2012 IMA Outstanding Achievement Award in the nonprofit category.

## International Justice Mission Freedom Commons ([www.ijm.org](http://www.ijm.org))

This site is not only beautifully responsive and full of tools that enable a compelling non-profit to work towards their mission, it also has the potential to change lives by spreading the message of modern-day slavery and helping advocates put an end to it.

# 3.9 Wiki Websites:

## Wikipedia([www.wikipedia.org](http://www.wikipedia.org))

Wikipedia is a free online encyclopedia, created and edited by volunteers around the world and hosted by the Wikimedia Foundation.

## wikiHOW([www.wikihow.com](http://www.wikihow.com))

WikiHow is an online wiki-style community consisting of an extensive database of how-to guides. Founded in 2005 by Internet entrepreneur Jack Herrick, the website aims to create the world's most helpful how-to instructions to enable everyone in the world to learn how to do anything.

## Gamepedia([www.gamepedia.com](http://www.gamepedia.com))

Gamepedia is the largest video game wiki platform on the web, featuring thousands of community-driven wiki projects. Owned and operated by FANDOM, Gamepedia is home to everything from indie title wikis to some of the best-known gaming wikis such as the Official Minecraft Wiki, Leaguepedia, and the Official ARK Wiki. Ranked in the top 500 sites globally by traffic, Gamepedia continues to expand rapidly with the creation of new wiki projects on a near-daily basis. In addition to its wiki offerings, Gamepedia is also a source of gaming news and information, high-quality video content, and exciting contests and giveaways.

## Wikitravel([www.wikitravel.org/en](http://www.wikitravel.org/en))

Wikitravel is a web-based collaborative travel guide based on the wiki model and owned by Internet Brands. It was most active from 2003 through 2012, when most of its editing community left and brought their contributions to the nonprofit Wikivoyage guide.

## Giant Bomb([www.giantbomb.com](http://www.giantbomb.com))

Giant Bomb is an American video game website and wiki that includes personality driven gaming videos, commentary, news and reviews, created by former GameSpot editors Jeff Gerstmann and Ryan Davis. The website was voted by Time magazine as one of the Top 50 websites of 2011

# 3.10 Content Aggregator Websites:

## News360([www.news360.com](http://www.news360.com))

**News360** is a personalized news aggregation app for smartphones, tablets and the web. It attempts to learn a user's interests by analyzing their interaction with news stories on the app and using semantic analysis and natural language processing to create an Interest Graph and construct a unique feed of relevant content for each user.

## Reddit([www.reddit.com](http://www.reddit.com))

Reddit is an American social news aggregation, web content rating, and discussion website. Registered members submit content to the site such as links, text posts, and images, which are then voted up or down by other members.

## Google News([www.news.google.com](http://www.news.google.com))

Google News is a news aggregator app developed by Google. It presents a continuous, customizable flow of articles organized from thousands of publishers and magazines. Google News is available as an app on Android, iOS, and the Web. Google released a beta version in September 2002 and the official app in January 2006.

## Alltop([www.alltop.com](http://www.alltop.com))

AllTop gives you the absolute best news sources for any topic! Our topics are carefully curated and constantly updated as we know the web moves fast so we try to as well. One of the features we are currently testing is to have our editors source the most important news stories of the day for a topic along with the conversation.

## Stumble Upon([www.stumbleupon.com](http://www.stumbleupon.com))

StumbleUpon was a discovery and advertisement engine that pushed web content recommendations to its users. Its features allowed users to discover and rate Web pages, photos and videos that are personalized to their tastes and interests using peer-sourcing, social-networking and advertising principles

# 3.11 Personal Websites:

## Simon Sinek([www.simonsinek.com](http://www.simonsinek.com))

Simon Sinek is an unshakable optimist who believes in a bright future and our ability to build it together. He discovered remarkable patterns about how the greatest leaders and organizations think, act and communicate. Simon may be best known for popularizing the concept of WHY in his first TED Talk in 2009. It rose to become the third most watched on TED.com, with over 40 million views and subtitled in 47 languages.

## Cristiano Ronaldo([www.cristianoronaldo.com](http://www.cristianoronaldo.com))

Cristiano Ronaldo's highlights and achievements in the 2018/2019 season. View Highlights. Your browser does not support the video tag. CR7 Footwear.

## J.K. Rowling([www.jkrowling.com](http://www.jkrowling.com))

Joanne Rowling CH, OBE, HonFRSE, FRCPE, FRSL, better known by her pen name J. K. Rowling, is a British author, film producer, television producer, screenwriter, and philanthropist.

## Graham Hancock([www.grahamhancock.com](http://www.grahamhancock.com))

Graham Bruce Hancock is a British writer and journalist. He is known for his pseudoscientific theories involving ancient civilizations, Earth changes, stone monuments or megaliths, altered states of consciousness, ancient myths, and astronomical or astrological data from the past.

## Jim Ramsden([www.jimramsden.com](http://www.jimramsden.com))

Designer from the UK, focusing all his efforts on creating useful software products. One day he hopes to make something that impresses his Mum.

# 3.12 Blog Websites:

## Blogger(<https://www.blogger.com/> )

Blogger is a blog-publishing service that allows multi-user blogs with time-stamped entries. It was developed by Pyra Labs, which was bought by Google in 2003. The blogs are hosted by Google and generally accessed from a subdomain of blogspot.com. Blogger makes it extremely easy for would-be web writers to publish their thoughts on the Internet. Blogger is a free blogging platform that's designed for ease. Because it's owned by Google, users can link it to various other Google products, like photo-sharing site Picasa and social network Google+.

## WordPress(<https://wordpress.com>)

WordPress is a free and open source course management system written in php and paired with a MYSQL or MariaDB database. WordPress was originally created as a blog-publishing system but has evolved to support other types of web content including more traditional mailing lists and forums, media galleries, membership sites, learning management systems (LMS) and online stores WordPress has also been used for other application domains such as Pervasive Display System(PDS).

## Ghost (https://www.ghost.org/)

This is a publishing platform focused only on blogging. The idea was to make a more streamlined and modern version of WordPress. As a consequence, the platform is built on JavaScript. It’s also available for a hosted or self-hosted version. It is perfect for bloggers.

## Tumblr.com (https://www.tumblr.com/)

The final entry for the best blog sites is Tumblr. The service is a micro-blogging platform optimized for short-form content. It also has a community behind it and social network features. Think of it as a middle ground between WordPress and Twitter.

## Wiki (<https://www.wiki.com/>)

A wiki is a knowledge base website on which users collaboratively modify and structure content directly from a web browser. In a typical wiki, text is written using a simplified mark-up language and often edited with the help of a rich-text editor. A wiki is run using wiki software, otherwise known as a wiki engine.