1. What is the history of the internet?

* The Internet is a worldwide system of interconnected computer networks that use the TCP/IP set of network protocols to reach billions of users. The Internet began as a U.S Department of Defense network to link scientists and university professors around the world.
* The history / development of the internet began in the early 1960’s. Although different scientists and visionary thinkers have anticipated and toyed with the idea of existence of worldwide networks of information previously in the early 1900’s it was not until Leonard Kleinrock published his paper entitled “Information flow in large communication Nets” on May 31 1961 the first practical schematics for the internet had arrived. Later on Robert Taylor with the ideas of Kleinrock and Lickder helped create the idea of the network ARPANET (Later to be known as the internet).
* Initially, the internet was a US defense department project that was born out of the Cold War and a desire to have armed forces communicate over a connected, distributed network.
* The first workable prototype of the Internet came in the late 1960s with the creation of ARPANET, which was originally funded by the U.S. Department of Defense, ARPANET used packet switching to allow multiple computers to communicate on a single network.
* On October 29, 1969, ARPANET delivered its first message, a “node-to-node” ,communication from one computer which was located in a research lab at UCLA to another computer which was located at Stanford) The message “LOGIN” was short and simple, but it crashed and the Stanford computer only received the note’s first two letters, “Lo”. Hence, “LO” was the very first internet message to ever be sent.
* In 1969 there were only 4 nodes connected TCP (Transfer Communication Protocol) is the standard set of codes that allow computers in the internet to communicate with one another. The TCP design was designed by Vinton cerf and Robert kahn in 1973 later which later was split into TCP/IP.
* January 1, 1983 is considered the official birthday of the Internet. Before this breakthrough, the various computer networks did not have a standard way to communicate with each other. ... ARPANET and the Defense Data Network officially changed to the TCP/IP standard on January 1, 1983, hence marking the birth of the Internet. The TCP/IP still servers us as a primary middle layer tool between a computer and a website.
* Name change
* Number of nodes or connected computers
* Network reach
* Gotten its name from the is based military Arpanet
* In the early days, used [Interface Message Processors](http://www.walden-family.com/public/1970-imp-afips.pdf) (IMPs), which were computers designed to organize and receive the data coming in and out of the network.
* they were the earliest versions of the modern router.
* ARPANET relied on leased telephone lines, much like the commercial internet did in the years that followed. Although the [first phone modem](https://www.techradar.com/news/internet/getting-connected-a-history-of-modems-657479) was invented in 1958 by Bell, which could just send data to other Bell devices, the first modem designed to use with a PC didn’t arrive until 1977.
* Subscribers would almost always rely on their existing phone line for connection to the internet, meaning that no one could use the phone when someone was on internet.
* Broadband modems act a little differently than their dial-up predecessors in that they do not need to call out over the phone line to your internet service provider to establish a connection to the internet—they stay connected unless they’re turned off.
* In the US today, most broadband connections come into homes through [the same connections](https://www.lifewire.com/definition-of-broadband-modem-817451) used for cable TV, and don’t tend to require access to a telephone line to connect.
* Coupled with the advent of wifi, broadband has revolutionized the way that people connect to the internet. Before wifi and broadband, accessing the internet was a very static and slow experience, requiring someone to sit in front of a large computer, physically connected to a modem, to access the web. But when wifi started to gain popularity, it made the internet accessible wherever someone had a laptop, tablet, or Palm Pilot and wifi connection. The earliest versions of wifi were implemented in the mid-1990s, but it wasn’t until Apple [included the technology](https://www.cultofmac.com/439013/today-in-apple-history-ibook-ushers-in-a-wi-fi-revolution/) in the iBook laptop in 1999, as well as  other models in the early 2000s, that it really started to kick off.
* The story of mobile broadband began in the early 90’s with the advent of 2G—the first generation of wireless to be digital. 2G’s capabilities and 64 Kbps speeds allowed for basic data services and SMS text messaging. Then came 3G in 2001, which offered faster data transfer rates, enabling basic mobile internet and the games, music streaming and video calling that followed.
* Because of its capability and convenience, mobile broadband has become the most popular way to go online. At the end of 2013, there were about 1.9 billion smartphone subscriptions in the world, and by the end of 2018, there were about 5.3 billion, a jump of about 180% in five years.
* In 1983 the connection grew to 5 cities namely UCLA, Stanford, UC Santa Barbara, the university of Utah and BBN.
* It was renamed to internet in 1984 when It connected 1000 hosts at different university and corporate labs
* The internet domain name system was created in 1984 to match complex ip addresses with easy to remember names ending in extensions as com, edu, gov, mil, org
* Today the internet links more than 440 million computers directly and millions more have internet access through private addressing schemes.
* In 1990 , Tim Bernres-Lee invented the world wide web as a method of publishing information in a hypertext format on the internet the web began to take off in 1993 after computer science student marc Andressen created the first popular web browser, known as MOSIAC. Since then the number of websites and web pages has exploded.
* Ecommerce burst on the scene in the mid-1990 and it’s been growing ever since both in total sales ans a percentage of all retail sales.

Security threats rise along usage 1988 the morris worm was the first major attack on the internet disabling 10 % of the internet host computers. Today hundres of more sinister attacks are aimed at internet users each day

1. View of 5 to 10 websites on web archive

Wikipedia

Wikipedia is a free online encyclopedia, created and edited by volunteers around the world and hosted by the Wikimedia Foundation. The website, since its launch on January 15, 2001, has gone through many changes and gradual development.

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| Date | Observation |  |
| Jul 2001 | In July 2001, the home page (as shown in the figure to the right) was mainly composed of text of black and blue color which I found very troubling to look for a specific functionality and made the website look a little bit dull and unattractive as well. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\wikipedia jul 2001.jpg |
| Sep, 2002 | In 2002 the site has shown regardless the fact that the website still lacked graphical features, they induced a navigation bar on the left side of the website which made navigating the page a bit easier. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\wikipedia sep 2002.jpg |
| Jul, 2005 | In 2005 the site had gone through major change. The different language available for the website are put surrounding the logo which could be easily accessed. Wikipedia’s home page with minor improvements Still today resembles its 2005 look. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\wikipedia Jul 2005.jpg |

* Amazon

Amazon, is an American multinational technology company based in Seattle that focuses on e-commerce, cloud computing, digital streaming, and artificial intelligence.

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| Date | Observation |  |
| Aug, 2000 | As Amazon added additional categories such as eBooks, baby items, cell phones, and video games the website had a number of tabs to include this editions with the limited real estate in the top navigation area. The tabs were reined in and the categories were moved to the left sidebar area. The Amazon logo decreased in size to accommodate the changes. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\amazon 2000.jpg |
| Jun, 2008 | The tab structure was completely set to left of the page. The site also changed to a blue and orange color scheme.  Amazon also used its own homepage to market the Kindle ebook reader. Moreover, the website with its numerous tabs gone has attained a much simpler and more attractive look. | amazon jun 2008 |
| Aug, 2015 | In 2015 Amazon’s website has a totally updated look, bold colors in the borders and background were omitted. Orange fonts were used to show prices and bolded text. A gray background gradient floated behind the top navigation area is used. Responsive web design elements were used. Also, the left sidebar was eliminated. The homepage moved to a modular design but it was still promoting all Amazon’s products. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Amazon Aug 2015.jpg |
| Mar, 2020 | The site debuted the *new products* promotional banner ad at the top of the homepage. They prominently used different shades of grey for the background which gave it its “elegant” look. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Amazon mar 2020.jpg |

Google

**Google** is a search engine that started development in 1996 by Sergey Brin and Larry Page as a research project at Stanford University to find files on the Internet. Larry and Sergey later decided the name of their search engine needed to change and decide upon **Google**, which is inspired from the term googol.

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| Date | Observation |  |
| May, 1999 | This logo showcased the hallmark primary color scheme still very much in use today. In addition, the “I’m feeling lucky” button is added, | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\google may 1999.jpg |
| Jul, 2004 | Google added the number of web pages in its search index to the homepage, a number that steadily grew over time until it was removed in 2006. A tabbed interface was introduced on top of the search bar to showcase the ability to search the web, images, groups, or directories. | google Jul 2004 |
| Jun, 2007 | Because of universal search, different types of results such as images, videos, news, books, patents, and more would populate for a given search -- without the user having to resort to separate searches in Image Search, Video Search, Book Search, etc. | google jun 2007 |
| Mar, 2020 | Google's homepage is clean and simple and has a rounded-corner textbox as the search entry field. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\google mar 2020.jpg |

LinkedIN

**LinkedIn** is a social network that focuses on professional networking and career development. You can use **LinkedIn** to display your resume, search for jobs, and enhance your professional reputation by posting updates and interacting with other people.

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| Date | Observation |  |
| Jan, 2010 | Used blue color predominantly for the texts. It was a simple page Featuring the LikendIN Logo as we know it today more over the page was mainly composed of texts | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\linkedin jan 2010.jpg |
| Aug, 2012 | The blue color for texts is now replaced with black. And to the left of the signup form is a nicely placed “Sample profile” picture. The 2012 website kept the search feature that was in the previous version and has removed the tabs on the top bar. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\LinkedIn aug 2012.jpg |
| May, 2016 | A responsive web design was implemented. The website used Gray as its accent color and a blurred grid of, presumably, profile pictures. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\LinkedIN May 2016.jpg |
| Jan, 2020 | More sections as well as tabs are added. The color scheme has also changed to brighter colors. The search feature has been modified into two fields and the search button is now in blue. Moreover, the website now has an entire section dedicated to enable search in specific categories. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\LinkedIn jan 2020.jpg |

GitHub

GitHub, is a US-based global company that provides hosting for software development version control using Git.

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| Date | Observation |  |
| Mar, 2009 | The website more or less plain which was mainly composed of text. The sections are heighted with different shades of light blue and white. The first section below the navigation bar consisted of Ads and just below the ads is the section consisting small description about github and a small signup button. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\github mar 2009.jpg |
| Jul, 2013 | The github Logo is now all in Sentence case which previously was all in small case. The color scheme had also moved from lighter shades of blue and white to dark and white. The sign up form is now included in the homepage rather than the signup button in the previous pages that directed to it. The tabs had been redefined and reduced in number and the search bar had been added to the top bar.The sections below the navigation bar is now reduced to 2 sections. Only maintain a simple yet descriptive page. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\github jul 2013.jpg |
| Mar, 2020 | The Text Logo is now replaced with an Actual Logo. The search bar that was previously on the left side of the logo is now on the right side of the tabs which I find more convenient. The page has maintained the dark with white color scheme. | C:\Users\Meti\AppData\Local\Microsoft\Windows\INetCache\Content.Word\github mar 2020.jpg |