**History of Internet**

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1. **The Invention of the Internet**

The internet was the work of dozens of pioneering scientists, programmers and engineers who each developed new features and technologies that eventually merged to become the internet we know today.

In Oct 1957, the Soviet Union launched Sputnik1 Satellite and the first workable prototype of the Internet came in the late 1960s with the creation of ARPANET, or the Advanced Research Projects Agency Network. Originally funded by the Department of Defense, United States of America. The very first Computer was large in size and not intended for Communication.

Still, the first practical schematics for the internet would not arrive until the early 1960s, when MIT’s J.C.R. Licklider popularized the idea of an “Intergalactic Network” of computers. Shortly thereafter, computer scientists developed the concept of “packet switching,” a method for effectively transmitting electronic data that would later become one of the major building blocks of the internet.

In 1962, there was an idea that shows network communication be built but it almost took 7 years to implement it. In 1969, they implemented the network concept and the same year first human landing on moon happened.

In 1969, Larry Roberts started working on “Interface Message Processor (IMP)” which was a packet switching node used to interconnect networks. BBN team lead by Frank Heart began working on connecting 4 IMPs. There was an issue as the packets were not stopping after delivering message to node. (The first computer was located in a research lab at UCLA and the second was at Stanford; each one was the size of a small house). In 1971, there were 18 main frame computers connected to network.



ARPANET adopted TCP/IP on January 1, 1983, and from there researchers began to assemble the “network of networks” that became the modern Internet. The online world then took on a more recognizable form in 1990, when computer scientist Tim Berners-Lee invented the World Wide Web. While it’s often confused with the internet itself, the web is actually just the most common means of accessing data online in the form of websites and hyperlinks.

In June 1992, Congress passed a bill to make Internet public and from there internet commercially available to public. Before that internet was only used by the defense department.

In 1993, Mosaic web browser was created by two students from University of Illinois. Mosaic was the first web that popularized the World Wide Web and the Internet.

In 21st Century, Internet is everything. There are 11 million Domain names and 70 million websites over internet and it’s still counting.

1. **Browser Wars**

A browser war is competition for dominance in the usage share of web browsers. The "First Browser War" during the late 1990s pitted Microsoft's Internet Explorer against Netscape's Navigator. The World Wide Web is an Internet-based hypertext system invented in the early 1990s by Tim Berners-Lee.

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In 1994, James Clark met inventors of Mosaic web browser, the first widely distributed and easy-to-use software for browsing the World Wide Web and invested $4 million for them to create a new web browser under the company named “Netscape”.

In Oct 1994, they developed a new browser called “Navigator”. The Navigator web browser was more stable and reliable than the Mosaic web browser. It hit 1 million downloads and started dominance in internet world.



In 1995, Navigator was at peak and it made giant Microsoft to look for development of the web browser to destroy the Navigator from Netscape. Microsoft employees held meeting at Netscape. According to them, Microsoft came to them with an ultimatum. Join up or move out of the way. Microsoft offered Netscape a huge sum for their browsers code base. When the team refused, employees from Microsoft threatened to eliminate them from the market by any means necessary.

Gates sent out a memo to all Microsoft employees titled “The Internet Tidal Wave.” In it, Gates outlined a new future for his company, one connected to the Internet. His paranoia for competition was also clear.

As Netscape’s success grew, Microsoft got their own browser ready. It was called Internet Explorer. IE was, at first, far from impressive. It was released as an at-retail extension for Windows ’95, and initially, did very little to damage Netscape’s market share.

For the next few years, Netscape and Microsoft waged war. Netscape began to focus on accompanying features. Microsoft took a slightly different route. Instead of adding extensions to their browser, they leveraged their position in the personal computing marketplace.

They gave away the browser for free to PC manufacturers and Internet Service Providers to bundle into their hardware. They lowered the price of their browser for Microsoft Windows users.

Microsoft’s aggressive push to distribute it, started to turn things in their favour. Netscape continued to innovate, but they knew they couldn’t keep up. So, they gave up browser war in 1997.

Then Microsoft was charged by the United States Government. In the summer of 1998, Microsoft went on trial for violating antitrust laws and a consent decree from a few years previous. The US Department of Justice argued that by giving away their browser for free, and bundling it into their operating system, they forced consumers to use their product and pushed competitors out of the market. This, along with the hostile pressure that Microsoft put on manufacturers to include Internet Explorer in their platforms, created a monopoly position for the company. Microsoft found guilty.

1. **Internet Search**

With the absence of Google or any other search engine, a decade ago, getting the millions of sites of accurate data was impossible. And half a decade before that, searching consisted of only text-based links with monotonous, unfiltered data which was not updated on regular terms. We can say here, that Yahoo started the game pretty well. It created the chance for information being pure and helpful.

With initiation of the web, no individual used it for commerce or any other relevant purpose. The very idea was considered heretical even evil by some. With time and such arguments around the web industry, the debate became fierce and the end result came to be known as **advertising**. The web, was then realised, to be the biggest opportunity for marketing and sales of any product or service.

With this point in debates and discussion, a certain part realised that Internet is not just for business, trade or commerce. It is to be considered as freedom. The students of different universities considered this option of freedom to a new revolution.



Let us have a look in the initiation of thought process for search. Two students, Yang and Filo, in the process of hacking a series basketball matches to know whom to bet on, started to extract all the data from the web. Their only intention seen here was gambling, but these Electronics Engineering students, with this knowledge realised soon, that web is goldmine. They started using banner ads and were always in a thought process to understand that, this process will work or not, and they found their way out, because it happened.

By 2007, Google and Yahoo! made billions and billions of dollars, but still no one used it for business or commerce. Then the era of advertisement took over and still reluctant to choose their faith, they had their views.

Even though excite came as a good competition for Yahoo!, none of them had developed the skills to search accurate data on real-time basis. With these new hotshot companies in a healthy rivalry and race to develop new updates and features, a new name emerged, Google, which meant 10 to the power of hundred, with their founders as barely socializing college students, Page and Brin. They came up with a simple methodology of searching. The hits on a particular link can measure the accuracy of information mentioned in that page. Even though their idea was great and in later years to be recognized well, investors did not pay a heed at the expected level at that point of time.

With every ray of light comes a new day, in the same way, for Page and Brin, Billy Gross was the light. The night was long, took a lot of time, but at the end, they got what they needed the most. They used his code and later on with Gross itself, the started the revenue on web with ads.

Slowly and steadily, Google moved ahead and bagged the search market so well, that excite then, became a history. With Yahoo!, still in competition with Google, they try and produce new every day.

In 2004, Google was on NASDAQ stock market. Almost within half a decade, it boosted more revenue than many companies from different sectors such as consumable products, service companies and what not.

With this, we can understand the simplicity, usability and customer attraction gainer, Google became. A company whose shares were sold at around $100 to $200, were sold at seven to eight times higher rates of the actual buying rate. But with every rise, there is a fall and with every companionship comes rivalry too. Google maybe ahead in the race, but there are many competitors in this industry who think, try and execute plans to beat Google in the search industry. Then emerged a powerful company, which had the ability to the show stopper and grow its roots deep in the industry. It was Microsoft. They were late but they certainly had the ability to crack the code. But what John Naughton phrases is a great point to understand. He says, “Good luck in making Google reveal its algorithm” and the secret lies within the algorithm itself. Rise and fall are inevitable and are meant to happen in way or the other. As still we can see, Google has not taken a fall yet, but only time can tell what the scenario can be.

1. **The Dot Com Bubble**

Amazon and eBay were considered lightning, sparkling and shining bursts around the year 1990. As any other famous company, idea of an online bookstore under the name “Amazon” started in a garage in Seattle. It was none other than Jeff Bezos, a guy from the Wall Street, a highly organized and inquisitive being and a spreadsheet enthusiast, who was doing the task. With the popularity of internet and millions of users using it in every possible part of the planet, this was an idea which cannot go down or flop.

The idea of bookstore was simple. His views and key points summarized to a point that no library or bookstore can store every book present in this planet. Approximately, during the same timeline, Pierre Omidyar, just like any other coder, had a creative mind. He had an idea of building a site, where people can auction goods. Post Labour Day, later in around 1995, he started creating just a simple code in which we can create an advertisement, list up all the similar ones and bid in similar items of others like actual usual auctions happen, but in a virtual manner. At the time of their initiation of start-ups, we can observe that, Bezos had a very commercial mind and Omidyar, well, he was, earlier said, just a humble coder.

With Internet spreading like wild fire, Bezos and Omidyar started to create new models of commerce, or we can say E-Commerce. With the integration of Internet and emerging popularity of nimble, affordable and robust personal computers, they commercialized their initial idea and took a step forward, which proved to be a golden one for them.



Parents see their children as perfect in every manner. Likewise, Amazon considered its bookstore services to be of top quality. Any new business has to face initial losses and sacrifice many opportunities and profits at times. Similar to that, Bezos rightfully said that, actually, his fundamental focus was not profit, to result in favour of rapid growth and profit. This was Bezos’ strategy which result to one getting a business bigger and faster, at a faster pace, a very fast pace. This thought of his made him think it was definitely important to grow to a particular level of excellency to satisfy and maintain customers for a longer time period, maximizing the chance the customers do not churn.

One of the success reasons for Amazon or eBay, is the Internet. And a supporting concept, which came into great importance is, Moore’s law. Gordon Moore, Co-Founder, Intel, created this law approximately around five decades ago. It is the observation which states that the number of transistors in a given dense IC doubles in, more or less, two years. This logic of Moore’s law has helped room-sized computers to reduce to hand-held robust systems. Where we can understand that, the density increases as the size of transistors decreases.

Now focusing on the elephant in the room. THE DOT COM BUBBLE. This bubble to inflate in 1997, reached its level in 2000 and was ultimately burst down in 2002. Here we can see that, the bubble started inflating has investments rose. Investments were rising because of the progress in the Internet, and the investments went higher and higher to the zenith. The main centre of attention were the tech companies. The main issue that came up was, nobody paid a heed to companies’ performance and progress. It is like a kid seeing a balloon, getting excited and not knowing that it will ultimately deflate or burst out. Common sense was no more common in this time period and blind investment was taking place every day, literally every day. The investors had a view, that companies having application with respect to the Internet will ultimately grow.

Ultimately, as we discussed about the inflating balloon, the prices rose approximately around five times. Then, the slow deflating balloon came between 2000 to 2002. And finally had to burst out in 2002. Well, one of the reasons the bubble burst is the 9/11 Attack, which was a news and is still considered a turning point.

As we closely see, we can understand that, many companies died. Investors were facing a huge loss, like literally a huge loss. Where we can see the bad side of this happening, there was a good side, for some. Amazon’s loss was present, but gradually, the revenue of this enormous company increased exponentially. To elaborate, the stock price of Amazon after this period dropped drastically. But later on, the same stock price increased approximately 100 times. Thus, in the end, we can that, this example of bubble burst proved to be a huge lesson of human nature for every person who has faced it.

1. **People**

This video tells us how the new concept Internet has changed the society and new age business enthusiasts are shaping the world by making the web collaborative, cooperative and shared. Internet, not only became used for search or trade or business, but also became a medium of communication. One can give an example of Facebook. New age firms made the web into a two-way medium, which is controlled by none, and owned and shaped by everyone. It is undeniable truth that the world, humans have shaped and reshaped and changed the Internet, but currently, the web has changed the world drastically. A new word highlighted, Social. With the generated skills of the Internet, Social Networking came up. Communication can be made by a phone or a letter or any other. It was then proven, that the Internet can be used to communicate and share information at a social level.

To elaborate, Internet has shaped human lives in a very different way. New inventions and new technologies were made possible using the services and facilities provided by the Internet. Convenience became a necessity with this.

Internet is considered to be messenger, a messenger of knowledge and information regardless of the country or area. A click sound makes one go through unimaginable and uncountable records of information. It can be said that, the Internet is an invention which has the potential to shape the future of this planet in the best way possible.



Well, talking about 2.0 Insurgency, H. K. Rose and J. Adelson are among the pioneers of this concept. Before being sold to Google, the three founders collectively had uploaded an initial video in Youtube, just to test it. Nobody actually knew that his idea will shoot up well. One can still find video which was filmed in a zoo. Eventually, Youtube was bought by Google in around 2005. Just to explain it normally, Youtube is a platform for sharing videos which was created by three professionals and then sold to Google for millions of dollars. Well, Google genuinely saw the potential of this idea, as not everything can be understood by an instruction manual. A video tutorial can help one create a better thing rather than just reading about it.

Youtube posed like a power given to netizens, where everybody can learn, see and explore anything they can think of. Baking a cake, current world news, technological updates, education and much more can be learned from this application of the Internet.

Then came a guy in his early twenties, with an incomplete degree but a great idea in mind, Mark Zuckerberg, Founder of Facebook. Here, a sense of emotion was understood by him and his partners. People living far away from their loved ones can now communicate well, share images and other media and gain their daily updates, because of Facebook. It became an elite example of the usage of the Internet. Mobile phone calls were still there, but seeing our people face to face became more subtle. Facebook provided this medium and since then, has become a monarch of social media. Losses were negligible in this scenario for the company, but the profits were high.

Annual income of Mark Zuckerberg is in billions of dollars and what he made, is just a social networking website, which no one had actually thought of. This idea of social networking spread like a wild fire and since then, Facebook is proving that it is on the top of the social networking hierarchy.