

ADDIS ABABA UNIVERSITY

ADDIS ABABA INSTITUTE OF TECHNOLOGY

CENTER OF INFORMATION TECHNOLOGY AND SCIENTIFIC COMPUTING

Fundamental of Web Design & Development

**Assignment One**

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**Stream:** Software Engineering Section 02

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March 2020

History of the Internet

The internet as we know is a large infrastructure whose complete history or evolution can not be described in a couple of pages. Therefore, I will be listing and describing key milestones and events related to the growth and evolution of the Internet starting from 1969.

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.

**1969: Arpanet**

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 U.S. Department of Defense, ARPANET used packet switching to allow multiple computers to communicate on a single network. The major people responsible for the creation of the ARPANET were Lawrence G. Roberts and J.C.R. Licklider.

On the October 29, 1969, computers at Stanford and UCLA connected for the first time. In effect, they were the first hosts on what would one day become the Internet. The first message sent across the network was supposed to be “Login”, but reportedly, the link between the two colleges crashed on the letter “g”.

By the end of 1969, four host computers were connected together into the initial ARPANET, and the budding Internet was off the ground. Even at this early stage, it should be noted that the networking research incorporated both work on the underlying network and work on how to utilize the network.

**1971: Email**

Email was first developed in 1971 by Ray Tomlinson, who also made the decision to use the “@” symbol to separate the user name from the computer name (which later on became the domain name).

**1972: CYCLADES**

France began its own Arpanet-like project in 1972, called CYCLADES. While Cyclades was eventually shut down, it did pioneer a key idea: the host computer should be responsible for data transmission rather than the network itself.

**1973: ARPANET and E-Mail**

ARPANET made its first trans-Atlantic connection in 1973, with the University College of London. During the same year, email accounted for 75% of all Arpanet network activity.

**1974: The beginning of TCP/IP**

The idea of open-architecture networking was first introduced by Kahn shortly after having arrived at DARPA. This made 1974 a breakthrough year. A proposal was published to link Arpa-like networks together into a so-called “inter-network”, which would have no central control and would work around a transmission control protocol (which eventually became TCP/IP).

Four ground rules were critical to Kahn’s early thinking:

* Each distinct network would have to stand on its own and no internal changes could be required to any such network to connect it to the Internet.
* Communications would be on a best effort basis. If a packet didn’t make it to the final destination, it would shortly be retransmitted from the source.
* Black boxes would be used to connect the networks; these would later be called gateways and routers.
* There would be no global control at the operations level.

**1977: The PC modem**

1977 was a big year for the development of the Internet as we know it today. It’s the year the first PC modem, developed by Dennis Hayes and Dale Heatherington, was introduced and initially sold to computer hobbyists.

**1983: Arpanet computers switch over to TCP/IP**

This year was also a major breakthrough. In January 1, 1983 was the deadline for Arpanet computers to **switch over to the TCP/IP protocols** developed by Vinton Cerf. A few hundred computers were affected by the switch. The name server was also developed in ’83.

**1984: Domain Name System (DNS)**

The domain name system was created in 1984 along with the first Domain Name Servers (DNS). The domain name system was important in that it made addresses on the Internet more human-friendly compared to its numerical IP address counterparts. DNS servers allowed Internet users to type in an easy-to-remember domain name and then converted it to the IP address automatically.

**The Internet grows:** By 1987, there were nearly **30,000 hosts on the Internet**. The original Arpanet protocol had been limited to 1,000 hosts, but the adoption of the TCP/IP standard made larger numbers of hosts possible.

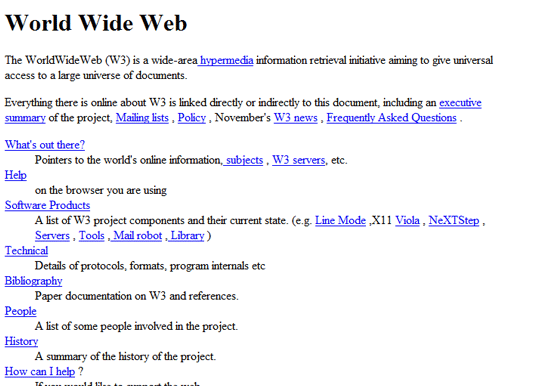
**1989: The proposal for the World Wide Web**

1989 also brought about the proposal for the World Wide Web, written by Tim Berners-Lee. It was originally published in the March issue of MacWorld, and then redistributed in May 1990. It was written to persuade CERN that a global hypertext system was in CERN’s best interest. It was originally called “Mesh”; the term “World Wide Web” was coined while Berners-Lee was writing the code in 1990.

1990 also brought about the first commercial dial-up Internet provider, The World. The same year, Arpanet ceased to exist.

**1991: First web page created**

1991 brought some major innovations to the world of the Internet. The first web page was created and, much like the first email explained what email was, its purpose was to explain what the World Wide Web was.

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**1993: Mosaic – first graphical web browser for the general public**

The first widely downloaded Internet browser, Mosaic, was released in 1993. While Mosaic wasn’t the first web browser, it is considered the first browser to make the Internet easily accessible to non-techies.

**1995: Commercialization of the internet**

1995 is often considered the first year the web became commercialized. While there were commercial enterprises online prior to ’95, there were a few key developments that happened that year. First, SSL (Secure Sockets Layer) encryption was developed by Netscape, making it safer to conduct financial transactions (like credit card payments) online.

In addition, two major online businesses got their start the same year. The first sale on “Echo Bay” was made that year. Echo Bay later became eBay. Amazon also started in 1995.

**1996: First web-based (webmail) service**

In 1996, Hotmail the first webmail service, was launched.

**1998: Google**

Google went live in 1998, revolutionizing the way in which people find information online.

**2001: Wikipedia is launched**

**2004: “The” Facebook openeds**

Facebook launched in 2004, though at the time it was only open to college students and was called “The Facebook”; later on, “The” was dropped from the name, though the URL **http://www.thefacebook.com** still works.

**2005: YouTube – streaming video**

YouTube launched in 2005, bringing free online video hosting and sharing to the masses.

**2006: Twitter**

Twitter launched in 2006. It was originally going to be called **twittr** (inspired by Flickr); the first Twitter message was “just setting up my twttr”.

**2008: “Internet Election”**

The first “Internet election” took place in 2008 with the U.S. Presidential election. It was the first year that national candidates took full advantage of all the Internet had to offer. Hillary Clinton jumped on board early with **YouTube campaign videos**. Virtually every candidate had a Facebook page or a Twitter feed, or both

**The Future?**

Where is the future of the Internet headed? I can only assume that the Internet will continue to grow. From basic developments to things like PPC advertising, the Internet has only become more impressive over time.

Web Archive

I have decided to view 7 popular websites.

1. [www.facebook.com](http://www.facebook.com)

March 2011: The website looks really good in this year. Everything is visible and sorted nicely. The sign-up portion is on the right side. On the left side there is a text describing what Facebook is and a picture that demonstrates this.

September 2013: The font is a bit big and everything pops out. I prefer the 2011 version.

July 2015: The website here looks much better than the 2015 version. The font is decreased and is well put.

July 2017: They have modernized the website. So far, this one is the best.

September 2018: They have added the picture that demonstrates what Facebook is back.

June 2019: The picture has been removed and some texts that describe Facebook have been added back.

Question 3

The 12 categories are Portal, News, Informational, Business/ Marketing, Educational, Entertainment, Advocacy, Blog, Wiki, Social Network, Content Aggregator, Personal.

1. Portal

* Yahoo: <https://www.yahoo.com/?p=us>
* News, email and search are just the beginning. Discover more every day.
* Santander Bank: <https://www.santanderbank.com/us/>
* As one of the largest banks in the eurozone, Santander looked to build a new enterprise web platform that would integrate with existing software while allowing room for new content and features.
* MSN: <http://www.msn.com/>
* The customizable and curated collection of the best in trusted news plus coverage of sports, entertainment, money, weather, travel, health and lifestyle
* UAB Medicine, Patient Portal: <http://www.uabmedicine.org/>
* UAB's top-ranked medical professionals found a platform through which they can reach many visitors and actual patients with health concerns.
* Grants.gov, Federal Government Portal: <http://www.grants.gov/>
* The mission of Grants.gov is to allow applicants for federal grants to apply for and manage grant funds online through a common website.

1. News

* BBC: <https://www.bbc.com/news>
* BBC News provides trusted World and UK news as well as local and regional.
* CNN: <http://www.cnn.com/>
* Find the latest breaking news and information on the top stories, weather, ...
* Fox News: <http://www.foxnews.com/>
* Breaking news and video. Latest Current News: U.S., World, Entertainment, Health, ...
* New York Times: <http://www.nytimes.com/>
* Free Access to NYT Apps. High Quality Journalism.
* The Guardian: <http://www.theguardian.com/>
* Latest international news, sport and comment.

1. Informational

* Mosaic Art Now: <http://www.mosaicartnow.com>
* This website is full of meaningful content and we will find plenty of interactive elements here. That accommodates the amazing range of mosaic artists and arts.
* The Verge: <http://www.theverge.com>
* An image carousel, drilling the reader into a story, divides every webpage.
* Dropbox: <https://www.dropbox.com/>
* Dropbox simplifies our work, with a central place to access and share your files”.
* Mint: <https://www.mint.com>
* The website’s homepage gives a secure and relaxing vibe, which is crucial for the financial firm.
* Airbnb: <https://airbnb.com>
* The website includes the date and destination in a smart search form, which is the first info that visitors will see.

1. Business / Marketing

* Forbes: <http://www.forbes.com/>
* Forbes is a global media company, focusing on business, investing, technology, entrepreneurship, leadership, and lifestyle.
* CNN Money: <http://www.money.cnn.com/>
* Complete financial stock market coverage with breaking news, analysis, stock quotes, before & after hours market data, research and earnings for stocks.
* DMN: <http://www.dmnews.com/>
* DMN is a resource for marketing and sales professionals that explores all realms of digital and data driver marketing in an unbiased and incisive manner.
* Event Marketer: <http://www.eventmarketer.com/>
* Event Marketer provides the information needed for strategic brand-side event marketers and agency executives ranging from face-to-face to corporate events.
* Business Insider: <http://www.businessinsider.com/>
* Business Insider is a fast-growing business site with deep financial, media, tech, and other industry verticals.

1. Educational

* Quora: <https://www.quora.com/>
* Quora is a place to gain and share knowledge. It's a platform to ask questions and connect with people who contribute unique insights and quality answers.
* Duolingo: <https://www.duolingo.com/>
* A website where one can learn 30+ languages online with bite-size lessons based on science.
* Udemy: <https://www.udemy.com/courses/>
* Udemy is an online learning and teaching marketplace with over 100000 courses and 24 million students.
* EdX: <https://www.edx.org/>
* EdX is an online learning destination and MOOC provider, offering high-quality courses from the world's best universities and institutions to learners everywhere.
* Khan Academy: <https://www.khanacademy.org/>
* Khan Academy is an online coaching website. Students who cannot afford a coaching can refer to this website.

1. Entertainment

* Netflix: <https://www.netflix.com/>
* Netflix is a movie and series streaming content.
* IMDb: <http://www.imdb.com/>
* IMDb (Internet Movie Database) is the world’s most popular and authoritative source for movie, TV and celebrity content.
* Spotify: <https://www.spotify.com/>
* With Spotify, it’s easy to find the right music for every moment – on our phone, our computer, or our tablet.
* Pogo: <http://www.pogo.com/>
* Pogo.com is a great place to play free online games, including puzzle games, word games, card games, and board games.
* ESPN: <http://espn.go.com/>
* ESPN.com is the web extension of the mighty Entertainment and Sports Programming Network which provides comprehensive sports coverage since 1979.

1. Advocacy

* Advocates for Children in Therapy: <http://www.childrenintherapy.org/>
* Advocates for Children in Therapy is an educational and public advocacy organization dedicated to halting the dangerous cruelty done to children by Attachment Therapy.
* Barefoot College: <https://www.barefootcollege.org/>
* Barefoot College forges a first-of-its-kind, women-centered, global network dedicated to sustainable development in every community where poverty exists.
* Class Action: <https://classism.org/>
* Simply put, their goal is to remove classism.
* MADRE: <https://www.madre.org/index.php>
* They fight for women’s rights.
* Youth Move National: <https://youthmovenational.org/>
* They’re a youth-driven, chapter-based organization dedicated to improving services and systems that support positive growth and development by uniting the voices of individuals who have lived experience in various systems including mental health, juvenile justice, education, and child welfare.

1. Blog

* Gala Darling: <http://galadarling.com/>
* In her blog, Gala’s main objective is showing women how to love themselves unconditionally.
* William Beem: <https://williambeem.com/blog/>
* This is William Beem’s photography blog.
* Green Living Guy: <https://greenlivingguy.com/blog/>
* In this blog, Seth Leitman talks about the importance of plants and all green things.
* Write to Done: <https://writetodone.com/>
* WTD is created so that we can learn new skills, practice them, and become a better writer.
* Convince and Convert: <https://www.convinceandconvert.com/blog/>
* They are strategists and practitioners of social media, content marketing, influencer marketing, word of mouth, and customer experience.

1. Wiki

* Wikipedia: <https://wikipedia.org/>
* A free encyclopedia with millions of articles contributed collaboratively using Wiki software, in dozens of languages.
* Wikia: <https://wikia.com/>
* Wikia is a community site that anyone can contribute to. Discover, share and add your knowledge.
* Wikihow: <https://wikihow.com/>
* In wikiHow there are easy, step-by-step, illustrated instructions for everything.
* Wiktionary: <https://wiktionary.org/>
* Collaborative project for creating a free lexical database in every language, complete with meanings, etymologies, and pronunciations.
* Word Reference: <https://wordreference.com/>
* Free online dictionaries – Spanish, French, Italian, German and more. Conjugations, audio pronunciations and forums for your questions.

1. Social Network

* Facebook: <https://www.facebook.com/>
* A social networking platform that helps to connect with friends, family and other people you know. Share photos and videos, send messages and get updates.
* Twitter: <https://twitter.com/?lang=en>
* From breaking news and entertainment to sports and politics, twitter has the full story with all the live commentary.
* Instagram: <https://www.instagram.com/>
* A simple, fun & creative way to capture, edit & share photos, videos & messages with friends & family.
* LinkedIn: <https://www.linkedin.com/>
* Manage our professional identity. Build and engage with our professional network. Access knowledge, insights and opportunities.
* Tumblr: <https://www.tumblr.com/>
* Tumblr is a place to express yourself, discover yourself, and bond over the stuff you love. It's where your interests connect you with your people.

1. Content Aggregator

* Alltop: <https://alltop.com/>
* Alltop pulls in the latest posts from websites on a variety of topics. What’s neat about Alltop is that you can search for specific topics and then view aggregated content from some of the top blogs for that specific topic.
* Popurls: <http://popurls.com/>
* Popurls pulls in content from a variety of social networks, blogs, and news organizations. It’s quite eclectic in its content.
* The Web List: <http://theweblist.net/>
* The Web List functions similarly to Popurls in that it’s a one-page content aggregator website that collects content from a huge variety of sources.
* WP News Desk: <http://wpnewsdesk.com/>
* WP News Desk is a content aggregator website that focuses specifically on WordPress. It automatically pulls in content from a variety of WordPress blogs and companies and displays posts on the front page.
* Travel Blogger Community: <http://travelbloggercommunity.com/>
* Travel Blogger Community is for travel bloggers what WP News Desk is for WordPress. That is, Travel Blogger Community aggregates content from travel bloggers all around the world in one accessible place.

1. Personal

* My CV: <https://aymen-mohammednur.github.io/My-Personal-Website/>
* My personal website.
* Seth Godin: <https://www.sethgodin.com/>
* Seth Godin’s personal website.
* Jim Ramsden: <http://jimramsden.com/>
* Jim Ramsden’s personal website.
* Juliana Rotich: <http://julia.na/>
* Juliana Rotich’s personal website.
* Anthony Wiktor: <http://www.anthonydesigner.com/>
* Anthony Wiktor’s personal website.