

ADDIS ABABA UNIVERSITY

ADDIS ABABA INSTITUTE OF TECHNOLOGY

CENTER OF INFORMATION TECHNOLOGY AND SCIENTIFIC COMPUTING

DEPARTEMENT OF SOFTWARE ENGINEERING

**COURSE:** - FUNDAMENTALS WEB DESIGN AND DEVELOPMENT

**ASSIGNMENT1: -** EVOLUTION OF INTERNET AND WEBSITES

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1.History of internet (the evolution)

Before 1957 computers only worked on one task at a time. This is called Batch processing. So a way had to be found in order to connect them.

In addition to the above, the main catalyst for the formation of internet was the heating up of cold war. On October 1957 during cold war, the first unmanned satellite, sputnik1, was sent into the orbit by the Soviet Union. Because of this the “fear of Missile Gap” emerged and this intern led to the birth of the ARPANET (AMERICAN RESEARCH PROJECT AGENCY NETWORK) which is the forerunner of internet and the first wide area network founded by the U.S. Defense Department in 1960s.

The three fundamental concepts to the history of internet in addition to ARPANET was:

1. The concept of military work by the RAND corporation in America
2. The commercial network of the National Physical Laboratory in England and
3. The scientific network, Cyclades, in France

The scientific, military, and commercial approaches of these concepts are the foundation for our modern internets. ARPANET is the most familiar of the above networks.

In 1969, researchers for DARPA sent the first data between computers in Los Angeles and Stanford University in northern California. They were using ARPANET. The technology that would eventually evolve to the internet. By 1971, there were only 15 different nodes across the US connected to ARPANET. In 1972, electronic mail was introduced. By 1973, the transmission control protocol (TCP) and it established how the information flowed between computers.

From the mid1970s onward, international connection to ARPANET were introduced. In 1989, Sir Tim Berners-Lee invented the World Wide Web at the CERN Physics Laboratory in Switzerland, and company, the world, become the first commercial internet service provider in the united states.

In 1994, the very first search engine was launched, but at the time, there were only 2,738 websites. Which is very small compared to the current over billion websites. Soon after that companies like yahoo, WebCrawler, Lycos, InfoSeek and AltaVista all popped up and were competing for popularity, but most of these companies were affected by the brusting of the dot-com bubble and only one of them is still around today.

In 1996, Nokia released the first internet-enabled mobile phone. The period between the mid to late 1990’s was the time of the dot-com boom and what become known as the dot-com bubble. This was the period of extreme growth in the internet, and there was a lot of excessive speculation in the internet-related companies. In 2000, that dot-com bubble popped. Some companies failed and completely shut down and went out of the business.

Following the dot-com crush, there was a period of reinvention. Web 2.0 emerged and this really revamped the way that the internet was used. Web 2.0 does not really talk speak to a technical specification, but it talks about the way which web pages designed and used. A Web 2.0 website allows users to interact and collaborate with each other in a social media dialogue as creators of user-generated content in a virtual community. In 2012, 1 billion unique users appeared on Facebook. Today there are billions of people connected by mobile devices and they have unprecedented processing power and storage capacity, allowing unbelievable access to the knowledge that’s available around the world.

2. View the 5 – 10 popular websites of your choice from web archive URL and put your observation and assessment.

1. GOOGLE

in 1996 google was initially nicknamed "BackRub" by the founders. Launched officially on September 4, 1998, and it looks different from today in many aspects.

its logos were Google BETA. there were list of links like help, About Google and the like on the center part of the page. on the righthand side there was a text area used to accept users email who want to subscribe it. and on the left hand side there was prototype link stanford search and Linux search

in 1999, the word BETA was removed from the logo and also links that were below the input area were all removed while links with the name Jobs@Google and About google added at the top right corner. These changes were resulted in a page which have simple looking and attractive.

in 2000 the links that were at the top was placed at the bottom of the page and additional links like Advertise with us, and links to google in different language were added.

from 2002 on there were no major changes. there was basically a change in a location of navigation bars and the logos which results in overall cleaner look from time to time. By the end of 2003 the logo flattened out entirely. And now it's gotten a lot more minimalistic look which is very cleaner than ever.

1. FACEBOOK

Facebook is a social networking service launched as The Facebook on February 4, 2004. by 2005 it grew to support more than 800 college networks.

In 2005, a profile on The Facebook had many of the details we might find on today's Facebook profile, but still had a very My Space vibe.

On Sept 20, 2005 thefacebook.com officially dropped the "the" and became Facebook, paving the way for this 2006 design, complete with larger photo and a font that was a bit more pleasing to the eye.

One year later, Facebook got a more adult makeover, which included the addition of the Mini-Feed, or a timeline of a friend's Facebook activity directly on their profile. Several weeks after the Mini-Feed went live, Facebook moved beyond schools and opened to anyone with an email address.

in 2008, Summer 2008 was the dawn of "new Facebook," which included a cleaner menu bar up top, as well as tabs that separated our activity and other profile data.

By March 2009, Facebook also rolled out a new homepage. It added the Publisher tool from user profiles to the main homepage to let you post links, photos, videos, or write a note without an extra click.

In 2010, it was time for another makeover. Probably the most interesting change was the array of photos that appeared near the top of the page.

The launch of the Open Graph in 2010 added activity outside of Facebook to the timeline. It had to be approved by the user, but some people didn't realize they were sharing their activity on sites like Vevo, Spotify, or Hulu, leading to some embarrassing revelations.

In early 2012, Facebook rolled out a new photo viewer that displayed larger photos with comments and ads shifted to the right-hand side when expanded. In March 2013, Timeline got a small update. Specifically, the social network introduced better ways for apps to appear on Timeline, improved controls for users, and streamlined tools for setting up Open Graph

In the last few years, Facebook has taken a few queues from Twitter, including hashtags, verified accounts, and ...

... trending topics, which rolled out earlier this month.

1. TWITTER

The first Tweet was published on March 21, 2006 when Jack Dorsey, co-founder of Twitter, published a message, "just setting up my twttr".

June 2009: Twitter introduces verified accounts, after many high profile celebrities had complained impersonation on Twitter.in this year it adds hyperlinks to #hashtags and around the end of 2009 twitter introduces retweeting so users could do so easily.

in 2010: Twitter delivers "New Twitter" - the largest update to the website’s interface to date. The design had a complete upheaval, with videos and photos now viewable within Twitter. This in turn make Links pasted into a tweet to have a content preview, image or video of the link. This made the content being shared by URL a lot more dynamic and engaging

In January, 2013: Twitter launches Vine, an app that allowed users to shoot and share six second looping videos. Videos were viewable in Twitter. The Vine experiment was an interesting one, with the intention for the platform to be as a way to capture “casual moments in their [users] lives and share them with friends.” Animated GIFs were finally able to be shared and viewed across all of Twitter’s platforms (desktop, mobile and app).

in 2015, Periscope, an app that allows live streaming, was acquired by Twitter. This highlighted a growing trend for live streaming across social media. Twitter introduced poll questions to their Tweets, offering users an opportunity to ask polling questions with up to 4 possible answers. On December 2017: The character limit of tweets increased from 140 to 280. Twitter introduces a plus button to create threaded tweets easily. Just a month after increasing the character limit.

in 2019: a new update is performed to the websites. The update is designed to make it easier to move around Twitter. ... With the update, the new navigation menu includes: Home, Explore, Notifications, Messages, Bookmarks, Lists, Profile and More — the latter, a menu where you'll find things like Moments, Twitter's ad tools, Settings and other features.

1. YOUTUBE

Created in the 2005. It is video sharing platform and owned by google. The first video upload in this platform was ‘Me at The Zoo’. YouTube is one of the popular websites.

The first YouTube that released in 2005 was having gray background picture, animated YouTube name, search field, navigation bar, taskbar and list of videos, and the videos was aligned horizontally in a row. The way they used the full width of the window makes it good. In the same year they changed the page and the background changed to white, and also added some margin from left and right of the window. It also allows to see users who are online. It possible to invite people to watch your video. the video contains some description part about the content of that video. In 2006 the page progressed to a better look. In the sidebar it provides a choice of video contents according their time, rate, category or language. It allows to rated the videos.

In 2010 the page still is with white background and the navigation bar was changed from the previous versions. In 2012 the page was having nice and better look. It come with black background in the sidebar layout and all links style well so they can have a better look. The navigation bar and the taskbar were having nice placement and well styled background set up. The drawback is that the original color and feature of the link tags not changed.

In 2014 the arrangement of the videos was well developed and the sidebar also become so convenient. The subscription button also began to appear under each YouTube videos. after this they update some contains. The added black effect beside the white one.

1. AMAZON

Amazon is an online shopping website. It was launched around 1990s. At current amazon is the first choice for an online shopping more than any other website.

In 1999 the first amazon page was nice. The arrangement and the way the link tags styled it made the page to look good. The web page covers the way window and the background color was white, there were navigation bar, task bar, sidebars was included. In the content section there is list of items to be sold.

In 2004 website started to sell jewelries. In 2005 image begins to used more and more to as icon for the goods to be sold.

In those next it shows more improvement in its layout and adding image of items to be sold. As the year does the began to give full description about items with price.

3. List five websites each in the 12 categories

The web is vast. As of now, there are billions of websites online, there are twelve most popular types of websites. While there’s some overlap between the different categories, in general each type of website has certain goals to achieve and its own set of best practices. The 12 most popular categories of websites are Portal, News, Informational, Business/ Marketing, Educational, Entertainment, Advocacy, Blog, Wiki, Social Network, Content Aggregator, Personal

* 1. PORTAL WEBSITES

Web portals are often websites designed for internal purposes at a business, organization, or institution. They collect information in different formats from different sources into one place to make all relevant information accessible to the people who need to see it. They often involve a login and personalized views for different users that ensure the information that’s accessible is most useful to their particular needs.

This category includes sites like

* Mail.ru.......................................... <https://mail.ru/>
* Naver............................................. <https://www.naver.com/>
* MSN.............................................. <https://www.msn.com/en-xl/>
* AAiT portal................................... <http://www.portal.aait.edu.com/>
* AutoZone………………………… <https://www.autozone.com/>
  1. NEWs (OR MEDIA) WEBSITE

Media websites collect news stories or other reporting. These sites give the latest news in entertainment, weather, and sports.

There’s some overlap here with entertainment websites, but media websites are more likely to include reported pieces in addition to or instead of content meant purely for entertainment.

This category includes sites like

* the Washington Post...................... <https://www.washingtonpost.com/>
* Slate............................................... <http://www.slate.com/>
* Xinhua News Agency.................... <http://www.xinhuanet.com/>
* Tribun News.................................. <https://www.tribunnews.com/>
* BBC............................................... <https://www.bbc.com/>
  1. BUSINNES /MARKETING WEBSITE

A business website is any website that’s devoted to representing a specific business. It should be branded like the business (the same logo and positioning) and communicate the types of products and/or services the business offers.

Regardless of the fact that we are selling anything directly online or not, the website or rather a business website can serve as an extension of our business with information about us, our business, and services and the types of services being offered by us.

what is the difference between e-commerce website and business websites? E-commerce websites are business websites, but it’s also possible to have business websites that don’t sell anything directly, but rather encourage visitors to get in contact for more information (a lead generation website) or come to a storefront if they’re interested in becoming customers.

Examples: -

* Amazon………………………………………….. <https://www.amazon.com/>
* Exposure…………………………………………. <https://www.exposure.com/>
* eBay……………………………………………… <https://www.ebay.com/>
* Minimums……………………………………….. <https://www.minimums.com/>
* KoolKids………………………………………… <https://www.koolkids.com/>
  1. EDUCATIONAL WEBSITE

These websites have the primary goal of either providing educational materials to visitors, or providing information on an educational institution to them. The websites of educational institutions and those offering online courses fall into the category of educational websites

Some educational websites will have advertisements like entertainment and media websites do. Some offer subscription models or educational products for purchase. And some serve as the online presence for an existing institution.

Example of websites under this categories are: -

* Udemy…........................................ <https://www.udemy.com/>
* Coursera......................................... <http://www.coursera.com/>
* Udacity........................................... <https://www.udacity.com/>
* Openlearning.................................. <http://www.openlearning.com/>
* Codecademy……………………… <https://www.codecademy.com/>
  1. ENTERTAINMENT WEBSITE

Entertainment Websites are humor websites that are purely designed for entertainment purposes. most of these websites do aim to make money like business and e-commerce websites do, but usually through the advertisements that show up on the page rather than through selling specific products or services.

Examples: -

* Onion…………........ <http://www.onion.com/>
* Xkcd ……………….. <http://www.xjcd.com/>
* Buzzfeed………........ <https://www.buzzfeed.com/>
* Fandom…………...... <https://www.fandom.com/>
* Eonline ....................... <http://www.eonline.com/>
  1. WIKI

Most people are familiar with wikis. A wiki is any website where various users are able to collaborate on content and all make their own tweaks and changes as they see fit.wikis can be created on pretty much any subject.

There are wikis for fan communities, for business resources, and for collecting valuable information sources.

Examples: -

* Wikipedia .......................... <https://www.wikipedia.org/>
* WikiLeaks........................... <https://www.wikileaks.org/>
* Scholarpedia ........................ <http://scholarpedia.org/article/Main_Page>
* Questia................................. <http://www.quesia.com>
* Bartleby................................ <http://www.bartleby.com>
  1. PERSONAL WEBSITE

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. It basically contains things that are personal.

Personal web pages are primarily used for self-promotion and informative or entertainment purposes but can also be used for personal career marketing (by containing a list of the individual's skills, experience and a CV), social networking with other people with shared interests, or as a space for personal expression.

This category includes personal blogs, vlogs, and photo diaries people share with the world.

Examples: -

* [Simon Sinek](https://startwithwhy.com/)………………………… <http://www.simonsinek.com>
* Tim Harford……………………………. <http://www.timharford.com>
* Joe Mcnally……………………………. <http://www.joemcnally.com>
* Melanie Davidead …………………… <http://www.melaniedavidead.com>
* Anna Santos………………………… <https://ana-santos.com>
  1. INFORMATIONAL

An informational website is one that provides information to the public. The types of websites are widely varied and can range from medical information to information about electronics.

the difference between personal and informational websites is that: -Personal websites can have info about yourself and the website is about you and others. Informational website can have info about Math, Science, anything.

Examples: -

* Dropbox Business………………. <http://www.dropbox.com>
* CNET…………………………… <http://www.cnet.com>
* Mosaic Art Now………………… <http://www.mosaicartnow.com>
* FreshBooks……………………… <http://www.freshbooks.com>
* Mint……………………………… <http://www.mint.com>
  1. ADVOCACY

An advocacy website contains content that describes a cause, opinion, or idea (i.e. business/marketing sites). These web sites usually present views of a particular group or association. Sponsors of advocacy websites include the Democratic National Committee, the Society for the Prevention of Cruelty to Animals, and the Society to Protect Human Rights.

Rather than providing support directly to clients or users of services, advocacy aims at winning support from others, i.e. creating a supportive environment.

Examples: -

* Youth MOVE National……………………… <http://www.youthmovenational.org>
* Stand for Children…………………………… <http://www.stand.org/>
* Amnesty International ………………………. <http://www.amnesty.org>
  1. BLOG

a regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.

Examples: -

* Blogspot ...................................... <http://www.blogspot.com>
* Blogger ....................................... <http://www.blogger.com>
* WordPress ................................... <http://www.wordpress.com>
* Webs............................................. <http://www.webs.com>
* LiveJournal……………………... <http://www.livejournal.com>
  1. SOCIAL NETWORK

Social networking sites (SNSs) are virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests.

examples: -

* Twitter...................................... <http://www.twitter.com/>
* Facebook ................................. <http://www.facebook.com/>
* Instagram.................................. <http://www.instagram.com/>
* Sina Weibo............................... <http://www.weibo.com/>
* Odnoklassniki ........................... <https://ok.ru/>
  1. 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. ... Those who simply gather news from various sources for their websites. Those who gather and distribute news for customers.

Examples: -

* Reddit.......................................................... <http://www.reddit.com/>
* Webdesigner News...................................... <http://www.webdesignernews.com/>
* Stumbleupon................................................ <http://www.stumbleupon.com/>
* Digg............................................................. <http://www.digg.com/>
* Alltop........................................................... <http://www.alltop.com/>

4. What are the guidelines for evaluating the value of a Web site?

Basically, not every site makes a good resource, however so how does one decide whether a site is worth using? there are criteria for evaluating websites:

some of them are: -

* Technical considerations
* purpose
* Content
* Authorship/Sponsorship
* Functionality
* Design/Aesthetics

The more Criteria the site meets, the more likely is to be a valueable resourse.

* 1. TECHNICAL CONSIDERATIONS
* Verify that the Web site's important capabilities, such as graphics or animations critical to the subject matter, can be utilized with the technology you have available. Some sites require more advanced browsers.
* The page should be stable, that is, consistently available.
* All the links and special features such as audios must be functioning; it is disconcerting if "Error" messages appear.
* If there is a fee for using the site, the site should provide a secure way to send payment.
  1. PURPOSE
* A site's purpose should be clear, and its content should reflect that purpose, be it to entertain, educate, or sell.
* Advertising should not overshadow the content.
  1. CONTENT
* A site's content should be comprehensible, appropriate, and of value to the intended audience. Awards won by a site may suggest quality but may also be little more than advertising banners for the issuing agencies.
* There should be enough information to make visiting the site worthwhile. Information on how often the site is visited may indicate its usefulness.
* Although there may be variations in how information is ordered, the organization should generally be logical.
* Sites that promote social biases (e.g., gender, racial, or religious biases) should be rejected or critically reviewed.
* If there are large amounts of information on the site, there should at least be a site map or outline of topics that allows users to find topics and move among them easily. A search function for locating information within the site would also be useful.
* The information should be current, accurate, and regularly updated. A "last updated" notification is a useful feature.
* Copyright information is useful if you anticipate copying a substantial amount of the content for dissemination.
* Links to more information on the topic should be provided.
* Graphics should be relevant and appropriate to the content.
  1. AUTHORSHIP/SPONSORSHIP
* The name of the individual or group creating the site should be clearly stated.
* The Web site author or manager should provide contact information for users to make comments or ask questions.
* Where applicable, reference sources for information cited should be provided.
* Sites that clearly violate copyright statutes or other laws should not be linked, listed, or recommended.
  1. FUNCTIONALITY
* Language used in messages and instructions should be clear, concise and easy to understand.
* The skills required to use the site's features should be appropriate for its intended audience.
* Navigation within the site should be easily carried out. Required "plug-ins" or other helper applications should be clearly identified, and navigational buttons should be of a consistent shape and location. Links should be descriptive of the content, and link text items should sound like invitations to content, not "click me/this/here."
* If a search function is available, instructions for conducting searches should be provided.
* There should be consistency in the use of features such as headers, backgrounds, fonts, and colors, particularly when they act as thematic pointers (e.g., sub-headings use a smaller font than major headings).
  1. DESIGN/AESTHETICS
* The site design should be appropriately appealing to its intended audience.
* The text should be easy to read, and not cluttered with distracting graphics, fonts, and backgrounds. There should be appropriate "white space," that is, space that is not occupied by text or graphics.
* The design elements and features on the site, such as searchable databases, animations, graphics, sound files, and transitional pages, should be labeled and explained clearly.
* The site should make use of conventional rather than cute but confusing features. For example, hypertext should be in blue text rather than buttons without accompanying text.
* Links should not lead to so many levels that it is difficult for users to get back to the page they started from.
* Sometimes the same site looks different on different browsers. Colors, graphics, and text may change. If you are looking at a Web site on your own computer, check to see how it will appear on the computers that other users, such as students, will be using.
* The color scheme should not be too gaudy and hurtful to the eye. Most experts recommend that a site contain no more than four colors, with a limit of seven throughout the site. Some suggest that a site contain both warm colors (e.g., red, orange, yellow) and cool colors (purple, blue, green). The most important consideration, however, is whether the colors distract from the main message.
* The colors may also need to be appropriate for color-deficient users, who tend to see everything in shades of green and grey, so check to see whether important messages are conveyed by differences or changes in color.
* A site has better readability if dark text appears on a light background, or vice versa. If pages need to be printed, pages using light backgrounds and dark text will produce better hard copies than pages with dark backgrounds and light text.
* Large images should be presented in thumbnail versions, with links to the larger versions

Website Evaluation

1. The Anti-Aging Medical Clinic

This website is authorized in 2014 since then it is not up-to-date which show that it failed in the currency guideline.

When see this website does not have any useful content in it for the audience so it fails in the Purpose guideline.

This website does have any information about the creator, so it not credentials, and also it does not have a way to contact. But the website can generate income for the creator.

Depending on the above assumptions this website is fake website. Someone develop it for fun or since the website can generate income it could be developed for income purpose.

The link to the website:- <https://www.medical-library.net/>

1. Encyclopedia Britannica

This encyclopedia website and it contain different information like about science, history, Technology and so on. The domain name of this is .gov, which could increase its reliability.

The page contains contact information about the author or authors, which show us that the page is authorized.

The purpose of the website is to give knowledge, their audience can be any who need information in specific field, the links are working.

This website was last update in 2020, which show the currency of the website.

The link to the website:- <https://www.britannica.com/>