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**History and Analysis of The Web**

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# History and Evolution of The Internet

In the 1960s, there was a need to transfer information between computers effectively. Since that era’s computers were so big, they were stored in separate sites and one had to walk from one site to another to exchange information. By that time MIT’s J.C.R Licklider popularized “Intergalactic Network” of computers. Shortly after the concept of “packet switching” was developed to effectively transfer blocks of data.

During the technological race in the cold war, the U.S Department of Defense funded the first workable protype of the in the internet which was known as ARPANET. On October 29, 1969, ARPNET delivered the first message “LOGIN” but crashed have way through. This was still a great result.

The 1970s saw the development ARPANET as well as early packet switching networks like NPL and Merit Network. This in turn created a need for internetworking so protocols were developed. Specifically, Robert Kahn and Vinton Cerf developed TCP/IP so data can be transferred between different networks.

On January 1, 1983 ARPANET adopted TCP/IP and researchers began to assemble the “network of networks”. Commercial Internet Service Providers (ISPs) began to emerge in the late 80s.

By 1990, limited private connections to the internet were being offered by ISPs. The ARPANET was decommissioned in 1990. That same year in CERN Switzerland, Tim Berners-Lee developed the World Wide Web which allowed linking of hypertext documents which can be accessed by any node in the network. This was achieved by the invention of URL. The web helped popularize the internet among the public. In 1995, major products were launched including Amazon, Yahoo, eBay, Windows 95 and Internet Explorer.

When the 2000s & 10s arrived, internet has become a part of day to day life. It also saw the rise of wireless internet communications and mobile internet devices.

# Observation and Assessment of Popular Websites

## 2.1 YouTube

When YouTube first launched, its layout and designing was done using tables which is not the case now. Another aspect that has change is its responsiveness to the change in environment. It was designed using fixed width and height. As such, when it is seen on smaller screens it still retains the size of the desktop site making not mobile friendly.

Another change that can be noticed is its improved personalization nowadays. Its use of cookies and other technology have made YouTube very personalized to the point where it seems to know you. That wasn’t the case back then even though it had some personalization features. The addition of auto complete in the search bar is also a tremendous improvement.

## 2.2 Google

On the cover it may seem like little has changed from the old days except for the developers embracing the minimalist trend and omitting any unnecessary info. But as you open the very first page you start to notice the difference. The site is localized and will automatically select the language of the region your in. Another noteworthy addition is the auto complete which is very intuitive.

Over the years Google had developed and added some new features. These include the image search and Google Maps. Using the new features HTML 5 Google Maps can track your location and display it on Google Maps. Although this has raised some privacy concerns over the years, it is a good addition for those who want it.

## 2.3 Rotten Tomatoes

The movie review site Rotten Tomatoes has been around since the 90s. One major change that can be observed right away is the change in theme which is for the website. The older version had too many colors and it may have been a little overwhelming to new users. Now it has a distinct red and white theme (keeping up with the tomato) which is instantly recognizable.

Like many old websites the older version did not adapt to changes in screen size at all.

## 2.4 IMDb

The old version of IMDb was unappealing and somewhat basic. It featured white background with black text and a few low quality pictures and that was it. It was focused more on the information than anything else. It was made with the old table layout and even featured the classic blue hyperlinks everywhere. Now it has been completely transformed into something that doesn’t even resemble the old. It is heavily graphics based, features multiple videos and photos including stunning animations.

The one thing it has retained however is its minimalist style. As the old, the new version of the website doesn’t overwhelm the users with eccentric graphics. Instead everything is intuitively designed.

## 2.5 LinkedIn

When LinkedIn launched it front-end appearance was not inviting. It had many non-complementing bright colors mashed together and it just looked like any other site that had job ads. This also include the classic blue hyperlinks. But the major change that had happened to LinkedIn is its investment in Artificial Intelligence (AI) aside from the front-end. This quote by Deepak Agarwal is the VP of **artificial intelligence** (**AI**) sums it up.

“AI is like our Oxygen.”

Over the years the massive amount of data collected from their users needed to be implemented. Thus, AI was the solution. Now there are recommendation engines that learn a wealth of information about you and provide you with optimal job connections.

The front end has also adapted well to new technologies like implementing the minimalist trend and creating an easy to navigate site.

# Types of Websites

## 3.1 Portal

Web Portals are a specially designed website that provide personalized

information catered from internal sources or various sources. Some examples are:

* **AAiT Portal**: <https://portal.aait.edu.et> – AAiT website that facilitates communication between the students, staff and administration.
* **Kadaza**: <https://www.kadaza.com/> - All-in-one website that organizes websites that you are visiting frequently.
* **myAT&T**: <https://www.att.com/my/#/login> - Used to manage services you are receiving from AT&T.
* **Britam**: <https://customerconnect.britam.com/> - Provides access to financial analysis and personalized advice for registered customers.
* **Council of Europe**: <https://www.coe.int/en/web/portal> - Offers internal communication and collaboration between numerous programs based out of the 47 member states.

## 3.2 News

These are websites that provide coverage for current and ongoing local or world events. Most of these sites have their roots in paper news or television news.

* **BBC News**: <https://www.bbc.com/news> - Website of the popular news channel BBC world news, provides worldwide coverage.
* **The Brussels Times**: [https://www.brusselstimes.com](https://www.brusselstimes.com/about-us/) – Publishes news mainly focused on Belgium and EU affairs.
* **CNN International**: <https://edition.cnn.com/> - Provides worldwide coverage of ongoing and past events.
* **HuffPost (The Huffington Post)**: <https://www.huffpost.com/> - An American based news and opinion website. Focuses primarily on events in the United States.
* **Yahoo News**: <https://news.yahoo.com/> - A website that originated as a news aggregator now focusing on original content.

## 3.3 Informational

These are sites that provide information on a specific topic and do not cover larger topic. Their articles tend to be short.

* **HowStuffWorks**: <https://www.howstuffworks.com/> - As the title explains this site explains the inner workings of a range of objects.
* **wikiHow:** [https://www.wikihow.com/](https://www.wikihow.com/-) - Publishes “how to” instructions on a wide range of topics.
* **WebMD**: <https://www.webmd.com/> - Published important facts about known diseases.
* **IMDb**: <https://www.imdb.com/> - Provides relevant information on upcoming and released movies and series.
* **The Lonely Planet**: <https://www.lonelyplanet.com/> - Offers general suggestions, cultural information and cautions for travelers.

## 3.4 Business / Marketing

These kinds of sites are used by business to promote their products or services.

* **21-capital**: <https://21-capital.com/> - Website of investment management firm based in France.
* **Skyline Films**: <https://www.skylinefilms.tv/> - Promotes film studio based in UK.
* **Datum 360**: <https://www.datum360.com/> - Advertises information management tool for large business.
* **Ethio Telecom**: <https://www.ethiotelecom.et/> - Provides information on services provided by the company.
* **htmlBurger**: <https://htmlburger.com/> - Offers web site designing services.

## 3.5 Educational

Educational websites try to provide an alternative to higher educational institutions. They presentation is like that of formal education.

* **EDx**: <https://www.edx.org/> - Platform offering a variety of courses on different topics from renowned universities and colleges.
* **Code Academy**: <https://www.codecademy.com/> - A site built for teaching programming languages and concepts; starting from beginners.
* **Udemy**: <https://www.udemy.com/> - Offers a wide variety of courses.
* **Coursera**: <https://www.coursera.org/> - A site that collaborates with leading universities to offer online courses.
* **Khan Academy**: <https://www.khanacademy.org/> - Has video as well as written tutorial for major topics that are covered in major educational institutions.

## 3.6 Entertainment

Entertainment sites from movies, music, sports to anything that is meant to entertain its audience.

* **Netflix**: [https://www.netflix.com/](https://www.netflix.com/et/) - Streaming service for movies and series.
* **Spotify**: <https://www.spotify.com/> - Music streaming service.
* **Rolling Stone**: <https://www.rollingstone.com/music> - Online magazine focused on the music industry.
* **ESPN**: <https://www.espn.com/> - Covers every aspect of almost all recognizable sports.
* **9gag**: <https://9gag.com/> - Website focused on making people laugh. This site is largely supported by its community.

## 3.7 Advocacy

The core purpose of advocacy sites is to promote their agenda and get people to join their cause.

* **Amnesty International:** <http://www.amnesty.org/> - Site of the world-renowned global movement, focuses on promoting human rights movements.
* **NAACP**: <http://www.naacp.org/> - National Association for the Advancement of Colored People, operating in the US, mainly focused on promoting racial equality in America.
* **PETA**: <http://www.peta.org/> - Is an American based animal rights movement that promotes ethical treatment of animals and exposes animal suffering.
* **Greenpeace**: <http://www.greenpeace.org/> - Promotes green energy and fighting for environmental justice.
* **Minority Rights Group International**: <http://www.minorityrights.org/> - Promotes support for minority and indigenous people.

## 3.8 Blog

Since there are different kinds of blogs their specific purpose might differ but their general purpose is to provide solutions to readers.

* **Maptia Travel Blog**: <https://maptia.com/> - A collaborative project with a diverse group of photographers, writers, adventurers, and conservationists, who bring their readers a world of inspiring and thought-provoking stories.
* **Harvard Health Blog**: <https://www.health.harvard.edu/blog> - Derives from Harvard medical school and helps the readers to stay healthy by providing advice on a full range of medical conditions and preventions.
* **A Nutritionist Eats**: <http://www.anutritionisteats.com/> - Focuses on helping you to create simple and nutritious, family friendly recipes, the founder, Emily, also offers private nutrition counselling.
* **Kotaku**: <http://www.kotaku.com/> - A gaming blog known for posting game reviews as well as topics related to gaming.
* **Tech Savvy Mom**: <https://techsavvymama.com/> - Personal blog of Leticia Barr who has won a lot of recognition in her field. Welcome! I'm Leticia, founder of Tech Savvy Mama and a DC Metro area dwelling mom with a tween and teen. She has a background in classroom technology integration and school administration. She uses her blog to teach parents how integrate technology into their children’s lives.

## 3.9 Wiki

Wikis are generally knowledge-centric sites and they might vary according to their intended audience.

* **Wikipedia**: <https://wikipedia.org/> - Is an online encyclopedia.
* **Basketball Reference**: <https://baseball-reference.com/> - Contains detailed statistical data of professional basketball player.
* **wikiTravel**: <https://wikitravel.org/> - Contains a range of information for travelers.
* **Fact Monster**: <https://www.factmonster.com/> - Free reference site for students to help with homework on different subjects.
* **wikiQuote**: <https://wikiquote.org/> - Provides quotes in every language from notable people and cultures.

## 3.10 Social Network

These are sites that try to emulate the real-world aspect of socializing unto the internet.

* **Facebook**: <https://www.facebook.com> – Popular social network to get in touch with family and friends, read news, participate in a wide array of groups.
* **LinkedIn**: <https://www.linkedin.com> – Career and employment oriented social networking platform.
* **Reddit**: <https://www.reddit.com> – Content based social network that implements voting system to analyze relevance and quality.
* **Twitter**: <https://www.twitter.com> – Social networking based on short text messages.
* **Instagram**: <https://www.instagram.com> – Social networking platform focused on photo sharing.

## 3.11 Content Aggregator

These are sites that gather content from a wide array of sources and arrange it in a personalized way.

* **Panda**: <https://usepanda.com/app/#/> - Focused on tech communities, recommended for web designers and programmers.
* **Memorandum**: <https://www.memeorandum.com/> - Political news aggregator.
* **eScience News**: <http://esciencenews.com/> - Aggregates popular science news articles.
* **Pocket**: <https://getpocket.com/> - One of the popular aggregators, enable you to save articles, videos and stories from any publication, page or app.
* **Feedly**: <https://feedly.com/> - News aggregator platform.

## 3.12 Personal

Personal websites maybe used to promote your work, especially if you are a web developer.

* **Gwyneth Paltrow Official Website**: <https://gwynethpaltrow.com/> - Personal website of actress Gwyneth Paltrow that contains her general info, including her bio.
* **Ximena Vengoechea**: <http://www.ximenavengoechea.com/> - works on the research team at Pinterest.
* **Devon Stank**: <http://www.devonstank.com/> - Used to promote his work. He is a square space developer.
* **Benjamin W. Felix**: <https://rationalreminder.ca/> - A Canadian financial advisor uses this site to attract clients.
* **Callie Schweitzer**: <http://www.callieschweitzer.com/> - Callie Schweitzer is the founder of The Callie Co.,  an executive advisory firm that works with well-known brands, best-selling authors and top executives at FORTUNE 500 companies to increase reach, relevance and revenue. The site along with above detail her many accomplishments.

# Guidelines for Evaluating the Value of a Website

The value of a website is evaluated by checking the guidelines (mentioned below) it has followed. A well-designed website should follow these guidelines.

**Authority:** The author of the website should be clearly stated along with information on how to contact them. The author should also state credentials or qualifications as to what makes capable to present information. In addition, if there is content from another source, that source should be cited.

**Purpose:** The purpose of a site should be clear and the content it holds should reflect this purpose. Its purpose could also be reflected in the URL. For example, .com for commercial, .edu for educational sites.

**Content:** The content of a website should be comprehensible, up-to-date and of value to the intended audience. This content should also be accurate and free from any social biases.

**Functionality:** Everything that is displayed in the browser should work as intended and its navigation and instructions should be easy to understand. If necessary, the site should have features catering to the needs visually-impaired or hearing-impaired users.

**Design / Aesthetics:** The site should have a consistent theme throughout. This theme should appropriate for the intended audience and in line with its content.

As a demonstration, I will try to evaluate the following of two websites. One as an example of a good website and the other as described by itself “The World’s Worst Website Ever”.

1. **Wikipedia:** [**https://en.wikipedia.org/**](https://en.wikipedia.org/wiki/LinkedIn#History)

* Authority: On the footer every page, information about the author of the site including contact information can be found easily.
* Purpose: The purpose of the site can be found by clicking on “About Us” link. In addition, since this is a site created to promote knowledge its domain name extension is .org which is used for non-profit organizations.
* Content: Its content is regularly updated by contributors and reviewed by other contributors to make sure it is free from any biases.
* Functionality: It has a simple navigation system on the left side for reoccurring needs and settings and the footer also contains enough information to make the authority known. Its content can also be accessed using the search bar on the top right corner.
* Design / Aesthetics: Since this is a site designed for knowledge and intended for people of all ages, its design resembles that of a real-world library. There are no bright colors to distract you and emphasis is placed on the content.

1. **The World’s Worst Website Ever:** [**https://www.theworldsworstwebsiteever.com/**](https://www.theworldsworstwebsiteever.com/)

* Authority: This website almost features no information about the author whatsoever. It only tells us it was developed by “Explorations Media Group”. To add to this, the link to the author is broken.
* Purpose: The purpose of this site is not stated anywhere.
* Content: Its content is completely random. It is no linked to any goal or purpose.
* Functionality: Its functionality is non-existent. There are many broken links to be found and its only form of navigation is easily visible even though its right in the middle of the page. In addition, some of the links that do work are not easily comprehensible.
* Design / Aesthetics: Its design features many bright colors that do not complement each other and distracting blinking lights. It also makes use the outdated sliding text or marquee.

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