UNIT I-WEB DESIGN PRINCIPLES

Basic principles involved in developing a web site, Planning process, Designing navigation bar, Page design, Home Page Layout,Design Concept., Brief History of Internet, What is World Wide Web, Why create a web site, Web Standards

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- Basic principles involved in developing a web site, Planning process, Designing navigation bar, Page design, Home Page Layout,Design Concept, Brief History of Internet, What is World Wide Web, Why create a web site, Web Standards

Basic principles involved in developing a web site

- **9 Principles of Good Web Design**
- WEBSITE PURPOSE. Your website needs to accommodate the needs of the user. ...
- SIMPLICITY. Simplicity is the best way to go when considering the user experience and the usability of your website. ...
- NAVIGATION. ...
- F-SHAPED PATTERN READING. ...
- VISUAL HIERARCHY. ...
- CONTENT. ...
- GRID BASED LAYOUT. ...
- LOAD TIME

WEBSITE PURPOSE.

- Generally, we can categorize the purpose of most websites into 3 sections: **Awareness, sales, and information**.

- **People and companies create websites for different purposes:**

- selling products and services,

- posting and finding information on the Web,

- gaining knowledge,

- communicating with each other,

- having fun, etc.

SIMPLICITY.

- Simplicity in web designs can be simply described as **removing all unnecessary elements from a particular website**. It generally refers to a sleek and clean layout and a uniform colour scheme to mai

- The famous French Poet Antoine de Saint-Exupery once said, "**Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away.**" This quote, in essence, captures the importance of simplicity in designing websites. ntain consistency.

- Tips for easy website navigation.
  - Keep the **navigation bar** as simple as possible with **minimal options**
  - **Mitigate** the drop-down menu options
  - Follow **real-world conventions** or use the user's language for naming the options. Don't use jargons
  - Avoid **too many clicks** inside the website

F-SHAPED PATTERN READING

- Eye tracking studies have identified that people scan computer screens in an "F" pattern. Most of what people see is in the top and left of the screen and the right side of the screen is rarely seen. Rather than trying to force the viewer's visual flow, effectively designed websites will work with a reader's natural behaviour and display information in order of importance (left to right, and top to bottom).

VISUAL HIERARCHY

- Visual hierarchy is the arrangement of elements in order of importance. This is done either by size, colour, imagery, contrast, typography, whitespace, texture and style. One of the most important functions of visual hierarchy is to establish a focal point; this shows visitors where the most important information is.

CONTENT

- An effective website has both great design and great content. Using compelling language great content can attract and influence visitors by converting them into customers.

GRID BASED LAYOUT

- Grids help to structure your design and keep your content organized. The grid helps to align elements on the page and keep it clean. The grid-based layout arranges content into a clean rigid grid structure with columns, sections that line up and feel balanced and impose order and results in an aesthetically pleasing website.

LOAD TIME

Waiting for a website to load will lose visitors. Nearly half of web visitors expect a site to load in 2 seconds or less and they will potentially leave a site that isn't loaded within 3 seconds. Optimizing image sizes will help load your site faster.

Planning process

There are seven steps that should be followed from start to finish when developing a website.

1. Research and goal setting
2. Planning
3. Designing the layout
4. Writing the content
5. Coding
6. Testing and launching
7. Maintaining

- Planning a website can take a lot of time and effort. It can also cost money to launch a website. The two most important factors that need to be taken into consideration are time and money. During the planning process, it is a good idea to make a timeline or have a goal of how long you might need to spend on each step. The more time that is taken during the first few steps of planning, the less you will have to do in the long run.

1. RESEARCH AND GOAL SETTING

As with any project, it is important to do proper research and set goals before beginning. By setting goals, it will help the website to have a direction and will also help your business to achieve specific accomplishments. The planning and goal setting process could take about 1-2 weeks to complete. It is a very important first step to creating a website that sells. There are a few questions you should ask yourself during this phase:

- **What do I hope for my website to accomplish?**
- **Who is the audience I would like to target?**
- **What are the main goals of the website?**

2. PLANNING THE SITE

- Planning the website involves creating a wireframe and sitemap. This is an important step because it is kind of like the skeleton of your site. This process can take about 2-6 weeks to complete. The sitemap allows the developer to get an outline of what the site will look like, what pages there will be and how they will interact with each other. This not only helps with planning but is also beneficial to the user experience.

- A user should be able to easily navigate a site, and this begins with the development of the sitemap. Before you begin to plan content, a sitemap lets you design what the structure will look like. Once the sitemap is completed, the other part of this step is to create a wireframe or mock-up. These are just visual representations of what the site will look like. This does not include the layout details.

3.DESIGNING THE LAYOUT

- The details of the layout are what will give your website character. This is the step where you get to be creative with pictures, videos and what kinds of things the customer will notice when they come to your site. This process can take about 4-12 weeks from start to finish. The timing depends on experience, time spent on the project, and how thorough the developer is. During this step, it is especially important to keep referring back to the target audience you wish to focus on.

- Consider colors, logos, and anything that will encourage your audience to interact with the site. By considering how you will create the layout of the website, you are attempting to bring the website to life. It should help the audience to get a feel for your business or product.

WRITING THE CONTENT

- This step may be going on simultaneously with the other development planning steps. The written content of a website is so important to its success. While this step may be happening during other steps, it is one that is crucial and deserves a lot of expertise. It could take from 5 to 15 weeks. The written content on a website is going to help a visitor determine their next steps. It is vital to drawing customers in and keeping them. There is a lot to consider when working on the content of the website.

- When determining what words to use, it is important that they are not too hard to understand. A general rule is that you have to assume not everyone is going to want to read words that are higher vocabulary. A website should have a vocabulary that the average person can understand.

CODING

- The coding typically begins with the homepage and gradually branches out to the other pages included in the site. This would be where the sitemap is followed to ensure everything is coded correctly. The coding step could take from 6 to 15 weeks, depending on how much content and how intricate you would like your website to be. It is also important to set up frameworks and CMS to make sure that everything will fit onto the server during the installation process. You wouldn't want to do all that work only to find out it doesn't fit.

- Once the website is laid out according to the sitemap, it should be tested before moving any further. If all works well, then the rest of the content should be added, and formatting should be completed. This phase involves having a deep understanding of the technology you are using. In fact, if you are looking to do most of the work yourself, you should at least consider getting a developer to code for you, so that you can make sure everything works as planned.

TESTING AND LAUNCHING

- Before the website is launched, it is crucial that it is tested out by real users. All the links and content should be tested to see if it works. Not only is it important to test out all the buttons and everything on the site, but it is also important to test out what users think of it. There is user testing that can be completed to make sure the website is giving users what they need to be successful on the test.

- Again, there are tools that can be used to determine if anything needs to be changed. Make sure to check all written content, including spelling and grammar. If your website has forms, ensure that they are working correctly as well. These might be important ways the users can get in touch with you or sign up for alerts and messages. Without these working properly, it can be very difficult for the user and also will be difficult for you to have a successful website.

MAINTAINING

- You might think your job is done once the website is launched, but this is not the case. Since technology and products are changing more rapidly than ever before, it is important to stay up-to-date with what is happening on the internet. Maintaining a website is hard work, but the more effort put into its maintenance, the better. There are a few different pieces to website upkeep.

- For one, it should constantly be checked out for errors. When a user encounters an error, this may be frustrating and may cause them to find what they are looking for somewhere else. Errors can also completely block them from the information they need to make a decision on purchasing a product or service. This is why it is important to not only test your website for user experience before the launch, but after as well.

DESIGNING NAVIGATION BAR

- Every good nav bar should be designed with the following elements in mind:

- Simple-It should be simple and clear, with text that's easy to read.

- Brief-Real estate is at a premium in your nav bar. Keep text brief; e.g. "Contact Us" instead of "Click To Contact Us" or "Blog" instead of "Read Our Blog."

- Consistent-As the "anchor" of your navigation, the nav bar should be consistent across all pages.

- Noticeable-Simple doesn't mean boring. The nav bar should pop and catch the eye; feel free to use contrast, color schemes, and other visual tricks to highlight the clickable elements.

- Helpful-Most importantly, your nav bar should answer questions—not create them.

Page design, Home Page Layout Design Concept

- A website layout is **the arrangement of all visual elements on a webpage**. Through the intentional positioning of page elements, we can control the relationship between them to better guide the user experience.

- In graphic design, page layout refers to **the process of placing and arranging text, images, and graphics on a software page to produce documents such as newsletters, brochures, and books or to attract readership to a website**. The goal is to produce eye-catching pages that grab the attention of the reader.

Brief History of Internet, What is World Wide Web, Why create a web site, Web Standards

- Where the Web was born. Tim Berners-Lee, a British scientist, invented the World Wide Web (WWW) in 1989, while working at CERN. The Web was originally conceived and developed **to meet the demand for automated information-sharing between scientists in universities and institutes around the world**.

World Wide Web (WWW),

- Byname the Web, the leading information retrieval service of the Internet (the worldwide computer network). The Web gives users access to a vast array of documents that are connected to each other by means of hypertext or hypermedia links—i.e., hyperlinks, electronic connections that link related pieces of information in order to allow a user easy access to them. Hypertext allows the user to select a word or phrase from text and thereby access other documents that contain additional information pertaining to that word or phrase. Hypermedia documents feature links to images, sounds, animations, and movies. The Web operates within the Internet's basic client-server format; servers are computer programs that store and transmit documents to other computers on the network when asked to, while clients are programs that request documents from a server as the user asks for them. Browser software allows users to view the retrieved documents.

WEB STANDARDS

- Web standards are the technologies we use to build web sites. These standards exist as long technical documents called specifications, which detail exactly how the technology should work. These documents are not very useful for learning how to use the technologies they describe (this is why we have sites like MDN Web Docs), but instead are intended to be used by software engineers to implement these technologies (usually in web browsers).

- For example, the HTML Living Standard describes exactly how HTML (all the HTML

- Web standards consist of the following: Recommendations published by the World Wide Web Consortium (W3C), such as
- HTML/XHTML,
- Cascading Style Sheets (CSS),
- image formats such as Portable Network Graphics (PNG) and Scalable Vector Graphics (SVG),
- as well as accessibility technologies like WAI-ARIA.