

Standard Techniques and guidelines for Optimized Web Development for user friendly websites

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INTRODUCTION

In the field of web development, whether you've been building static web pages, managing hosted blogs, or are new to web development altogether – building a dynamic, content managed website may be typical task without a well-mannered structure and standards. There are thousands of models and guidelines are produced by researchers and reviewers. I am trying to produce a solution that can provide all of the benefits of a content management system, without the steep learning curve you might expect.

If you're going to build web site that takes an advantage of cutting-edge web 2.0 features, this paper will help you. With illustrated diagrams and easy to follow instructions, this paper will take you through set-up, site administration, and even content organization.

KEYWORDS

Website Development, development guidelines, web building

Purpose of the Web Site

Before developing a website you must have complete understanding of the purpose of the web site that a website must do.

First of all I would like to introduce you the basic structure of the page before starting the further guidelines for development. By doing so, it will help us to list out the different pages and ofcourse its contents and the way how to explain it. The layout of a page will help to keep track of the details. However we will do it, we'll need to list all of the pages of our site and what we need on them. Group them into main and sub-pages to get a feeling for what our site navigation will need to look like.

For this paper, I planned a site for online store where a number of products of different types and categories are being available with different options of prizes depends upon selected attributes. This is a "Product|" site template. This template activates and configures a bunch of modules, content types and blocks for me.

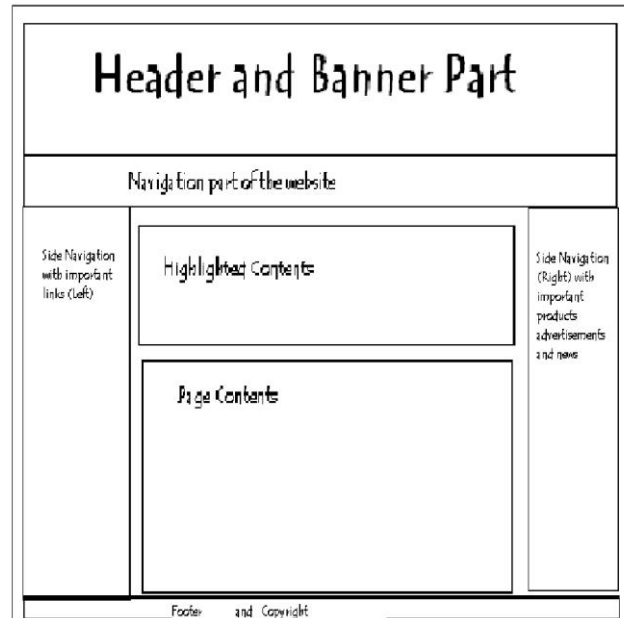
PLANNING OF WEBSITE

Before taking next step, we must consider that:

1. Types of contents
2. Source of contents

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3. Interested user Involved to view the data
4. User involved to update the content
5. Controlling authorities of the website



Types of Contents

A design of a site always depends upon the content type for example a content may be a plain text, a snap shot or a photo gallery or even a mixture of text and graphics, some motion pictures or an animation. Different type of contents may have different requirements with respect to the third party controls, tools and technologies, look and view of the web site, client side settings and plug-in and lot more.

So, What are the contents that must be considered before the development.

Source of the content

Next thing to be considered is the source of the contents that Where does this come from? Is it a purely idea of site administrator or it is some combination of users as a uploaded content or in the form of views and comments. This affects the role, permissions and module.

Interested user Involved to view the data

Here we consider that who interacts with site and how? A target community of user may be identified before starting the website development. A research journal of science may targets the scientists and scholar who may be interested in new thoughts and innovative ideas. A manufacturer of toys may target the below thirteen age group. So, it all depends on the purpose of the website. Web content and design may be effected by the factor that who is going to view it. Colorful page with cartoons may be a choice of kids, teen agers may like some adventures things and students of a particular branch of engineer may expect some technical or innovative thoughts on the website. A website which targets the common man may be enough simple so that contents of website may be easy to understand. A simply structured website helps the user to find contents in which user may interested. These questions are very similar to the previous set (source) and can usually also be answered with a different combination of user roles, permissions and module configuration.

- How it can be displayed?
- Who can see it?
- Who can change it?
- Who can add to it?

Display: Where and how is this displayed? The answers to these questions lie in the configuration of blocks, selection and presentation of content in views, menu- and module configuration, and so on. By `display||` I mean the functional aspects of our site like contents of the pages may be an appropriate for selected age group or a region. So the selection of content may be according to the region form where request is being received. This rule may be same for the content, products, images, animations and advertisements displayed in websites. So following questions must be answered.

- Where on the page does content appear
- In which region it will be displayed.
- Is it against the law of any region?
- Is it a web link?
- Is it a menu item?

A regular practice and experience of developing websites, makes it a part of your nature and make you feel confident that you are covering all the relevant aspects of each page element on your site. In order to choose the appropriate content for a particular area in the page can be decide with the preferences and criteria decided by the site administrator. Last viewed products or similar to that may be viewed on the top. One may be interested to highlight the new launched or upcoming products. Contents for adult peoples may be banned in a particular country or a region

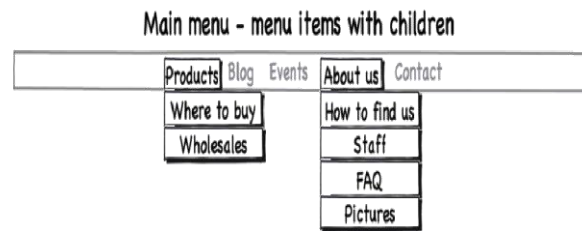
Authorizations: This will answer the rest of your questions about who can see, add new data or modify existing data. This depends upon the nature of your data and ofcourse purpose of page. A sensitive data may be viewed for a particular age group or also by a particular region or may be particular list of user that may be authorized for it for example data uploaded by a user on a social network sites, where friend list may allowed to see the content.

For deciding who can add data it again depend what kind of data being displayed. Main data may be added by a website administrator or its staff but comments on this data may be allowed to add by registered/unregistered users. Registered user may change its own profile data or can give his thoughts on a particular issue. Other may be allowed to view it and comment on it. A public opinion on a political issue may be a concern of a survey. A company may also be interested in customer's choice in order to launch new products.

BUILDING FIRST PAGE

As you go through the development and measurement model and study the Source–Interaction– Display process during development of websites, you'll start hitting more and more elements you've already covered. This should give you some peace of mind that you are covering all the bases.

Here's the plan for my front page



Flexibility about user's choices

The really important part of the products page (see below) is the attributes list of product— that's what we really want to know about a product i.e., a product may come with different choices of colors and accessories. Customer may choose a specific color and accessories with the model of his/her choice. Price may vary according to selected attributes. So our site must be flexible about the choices offered to users. Everyone should feel free to visit our website with a consideration that everything of his/her choice is available.

Monitor the User Activities: A user especially when he is registered with your website must be monitored and logged for his activities on the web site. This will help you to identify his interests and habits. In case unregistered user his IP address may be used to keep track of his/her activities. During his next visit contents of the page may be modified according to individual's interest. In a commercial web site it is more important to know the categories of products in which a user maybe interested. The content common to all users must not be controlled or modified dynamically. Try to keep it as static as possible. It might be a better idea to remove the server side overhead and save execution time. So before adding or modifying the contents of a dynamic page following questions must be answered.

- When should new contents be added in the page and why?
- Should the page be static or dynamic?

Visiting Frequency: In order to increase the user's visit frequency on the website, a frequent visitor may be awarded with discounts or rewards. So maintain a log for user visits. Availability of content which is a part of user's interest might attract user to visit again on the page. As per a business rule if your customer doesn't come to you again, you are losing. It is better to have new customer in your bucket, but you can't make it full if it is a leaky bucket. Try to retain the existing customer along with the efforts for adding new ones. So try to make your customer a frequent visitor. Try to put everything what he needs and where he wants, but remember; this must not be a beehive.

STATIC AND DYNAMIC

Understanding what static and dynamic pages (and blocks) are and when you should use each can help you plan and run your site.

Static pages and blocks - There are a few pages or blocks on most sites that don't change much-like the welcome text on website's front page.

Menus- Most of the time it is suggested that menu should be static, A fix number of options for everyone. This may be ok for small websites but in case when waste numbers of fields or options are covered then a dynamic menu (that may vary according to user's interest or a section of the website which user is surfing) may be provided. In other way we can use a hierarchical menu using client side script.

Header-It is suggested that a header of the website should be same for all the pages until and unless a different or sub domain is not chosen.

Title- This must represent a website as well as Individual page information.

Tooltip text- This is most important part of the website and must be taken care of. Any abbreviations, images, fields, buttons or any other active material must be placed along with tool tip text. This provides a great comfort to the user during surfing the page.

Appearance - Website must look unique and consistent. This may be dynamic but not different for different pages. An option to customize the theme may also be provided to user or a set of predefined themes may be provided as an option.

Contents- The contents of the website which are common to all the users must remain static. However content that may vary according to time as well as the contents specific to user interest must be decided dynamically.

Dynamic pages and blocks

Building and maintaining complex pages by hand is laborious. As web site grows and changes, those pages change for user automatically. Some of these dynamic pages and blocks and its modules are:

Blog module- lists all blog posts, newest first. If you have two blog authors, there'll also be two other pages, each with a single author's entries. Most of us can probably use a couple other dynamic pages like Views. They give you a variety of powerful options to make the rules-called "views"-to build dynamic pages and blocks.

STRATEGY FOR MAKING CONTENTS

When should we create and use new content types? I use two strategies when planning a site: organization and access.

The organization strategy – Making content types that fit your data helps in collecting, organizing and presenting it. You could use a simple content type like "Basic page"-which is only a title, and a body text-for everything on your site, but it's like throwing a bunch of colored toy blocks into an open box. The information might all be there, but it's hard to sort the products from the staff members from anything else. One product might be described one way and another completely differently.

Custom-tailoring (new) content types by adding numerical, text or other fields to them means no matter who adds new products on your site, it will be done in a standardized format. This also lets you take advantage of views to make dynamic, sortable products pages, while still only having to enter each product a single time.

The access strategy – Limit content contributors' access to only creating and changing content of one or more specific content types. Site administrators retain full access to the back end, but restrict non-technical users, improving security and reducing administrative headaches.

Example:

- Three groups of users need to add and change content on a school website: the school administration, the PTA, and the after school program.
- Make a user role for each
- Make two simple content types (title and body text only), "PTA page" and "After School page", along with anything else you need.
- PTA and After School are only assigned permissions to create, edit and delete pages of their own content types.

- School administration users are permitted to create, edit and delete all content and blocks on the site.

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