

Creating Health Digest News Web Site by Using Templates

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Abstract

Nowadays, a website is much more than just a beautiful graphic design on screen; it is an important tool to provide the necessary information to the visitors. The management of web content and information plays an importance role in Website strategic planning to offer the latest and complete information. So web content management systems are allowing users to manage and edit the website content easily. In this paper, the web content management system for health digest news site will be built as a case study. Creating features for managing contents and adding features for changeable web design templates are the main parts of this system. Users can create not only the web content pages but also display in different designs and layouts based on provided templates by the system.

1. Introduction

A Web content management system (WCMS or Web CM) is content management system (CMS) software, usually implemented as a Web application, for creating and managing HTML content. It is used to manage and control a large, dynamic collection of Web material HTML documents and their associated images.

A WCMS facilitates content creation, content control, editing, and many essential Web maintenance functions. Usually the software provides authoring (and other) tools designed to allow users with little or no knowledge of programming languages or markup languages to create and manage content with relative ease of use. This system allows several people to edit it together (collaboration), allows the right people to do the right things to it (workflow), allows deciding when to display it (scheduling), and allows it in the right standard format (templating) [3].

In Myanmar, specific web sites for Health Care and related news are not much like other news web sites. Most of currently available are in English or Myanmar news described in pictures instead of

Myanmar Unicode fonts. Most of all web sites are also constructed with static pages so it will be difficult to search, write and maintain contents and not changeable in Web design while in need.

In this paper, the web based CMS for health digest news will be created to provide easy authoring or editing of web-delivered health information and news by those web site members who have the information, without the need for specialist technical skills.

This proposed web CMS will also provide a tool module to authorized users who want to change web displays and designs easily by using a large amount of templates and layouts provided by the system.

1.1. Organization of the paper

This paper is structured as follows. The previous section 1 is Introduction and in following section 2, the related works of this system will be described. The background theory of the paper will be described in section 3. Section 4 will describe the detail implementation of the proposed system. Section 5 will then display the steps and results of the system. And finally, in section 6, 7, and 8 will be arranged with conclusion, limitations and the references of the system.

2. Related works

Web Content Management Systems (WCMS) are widely used around the world.

A team of graduate students and a professor of MIS (Management Information Systems) at the University of Maine followed a systems analysis and design process as a learning experience for the students to understand the information and knowledge needs of university faculty. Based on these explorations, a university knowledge portal was developed to fill a perceived gap in knowledge sharing and accessibility within the University. The research team evaluated the decision to build an open source site from scratch using HTML, PHP and MySQL verses using the open source CMS. While the team believed that creating the site from the

beginning provided greater creative freedom, it would also have been much more time consuming. Since time was a limiting factor, the team decided to use the CMS because it had built-in functionality needed that would cut development time dramatically [1].

The California State University, Chico website consists of approximately 60,000 to 80,000 pages requiring constant updates and a coherent organization. In order to serve the campus community and external audiences, it is important that the campus image is portrayed professionally and that web content be kept up to date. Additionally, it is critical that campus web pages comply with federal, state, and CSU accessibility requirements.

The CSU web team knows Web Content Management Systems (WCMS) will make it easier to develop and maintain websites with a consistent look and feel, appropriate access control, version control, workflow, search engine and statistics view. A WCMS can also be an essential tool in complying with web accessibility.

The team researched and rated approximately 30 products, emphasizing the viability of the product within the CSU Chico's decentralized computing and web development environment, and with special emphasis on ease of use for campus users. The committee concluded that a modern WCMS system, if implemented correctly, would greatly enhance the University's ability to create and maintain campus web pages as well as meet campus needs for web accessibility compliance [2].

According to the above systems, WCMS were implemented as necessary, but both were only emphasized on web contents but do not implement the customizable design templates for web users.

3. Content management system

Content management system, or CMS, is the set of processes and technologies that support the collection, managing, and publishing of information in any form or medium. In recent times this information is typically referred to as content or, to be precise, digital content. Digital content may take the form of text, such as documents, multimedia files, such as audio or video files, or any other file type which follows a content lifecycle which requires management [5].

3.1. The process of content management

Content management practices and goals vary with mission. News organizations, e-commerce websites, and educational institutions all use content

management, but in different ways. This leads to differences in terminology and in the names and number of steps in the process. Typically, though, the digital content life cycle consists of 6 primary phases:

For example, an instance of digital content is created by one or more authors. Over time that content may be edited. One or more individuals may provide some editorial oversight thereby approving the content for publication. Publishing may take many forms. Publishing may be the act of pushing content out to others, or simply granting digital access rights to certain content to a particular person or group of persons. Later that content may be superseded by another form of content and thus retired or removed from use [5].

3.2 Roles and responsibilities

Content management is an inherently collaborative process. It often consists of the following basic roles and responsibilities:

- Creator - responsible for creating and editing content.
- Editor - responsible for tuning the content message and the style of delivery, including translation, localization and responsible for releasing the content for use.
- Administrator - responsible for managing access permissions to folders and files, usually accomplished by assigning access rights to user groups or roles. Admin may also assist and support users in various ways.
- Consumer, viewer or guest- the person who reads or otherwise takes in content after it is published or shared [5].

A critical aspect of content management is the ability to manage versions of content as it evolves (see also version control). Authors and editors often need to restore older versions of edited products due to a process failure or an undesirable series of edits.

Another equally important aspect of content management involves the creation, maintenance, and application of review standards. Each member of the content creation and review process has a unique role and set of responsibilities in the development and/or publication of the content. Each review team member requires clear and concise review standards which must be maintained on an ongoing basis to ensure the long-term consistency and health of the knowledge base.

A content management system is a set of automated processes that may support the following features:

- Import and creation of documents and multimedia material.
- Identification of all key users and their roles.
- The ability to assign roles and responsibilities to different instances of content categories or types.
- Definition of workflow tasks often coupled with messaging so that content managers are alerted to changes in content.
- The ability to track and manage multiple versions of a single instance of content.
- The ability to publish the content to a repository to support access to the content.

Increasingly, the repository is an inherent part of the system, and incorporates enterprise search and retrieval [5].

3.3 Functions of CMS

While considering the functionality of Content Management System it has to bring the view of the users about elegant web page with neat content into reality without any security problems. So, below are the common features and functionality of a standard Content Management System.

- Editorial Control - The content that is published online via the CMS has good control over the editorial phase. The content is developed by the content creator in his login and it is corrected by the content editor in his login. Finally, the content is published after the authorization and approval of the admin (Editor-in-chief) as in figure1 [3].

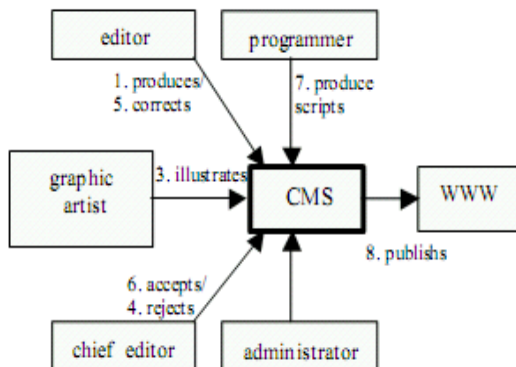


Figure 1. Editorial process of CMS [4]

- Template System - In order to add or change a new or existing graphics part or

styling options of the webpage is a simple process with the help of this template system. But, if the same template is needed but with minor change then it can be carried out easily without changing or affecting the existing actual template. The actual template or the existing template is the master template created by the experienced professional designer with logos and standard navigation options. With the help of CMS the content can added or edited into the template.

The template system can be seen as shown in the following figure 2.

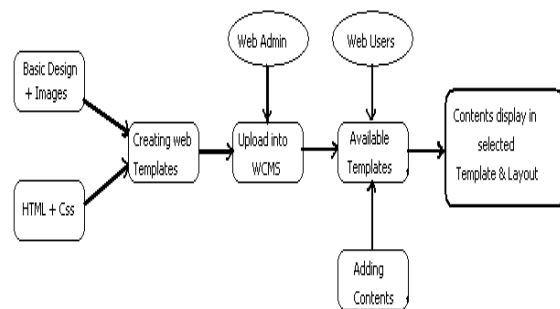


Figure 2. Working of template system used in this health digest CMS

3.4 Web templates or themes in CMS

A web template or a theme is a tool used to separate content from presentation in web design, and for mass-production of web documents. It is a basic component of a web template system. Web templates can be used to set up any type of website. In its simplest sense, a web template operates similarly to a form letter for use in setting up a website.

Web templates are used by web designer to save time by reusing resources and separate code from content. The larger the website, the more imperative that a website template system be used in order reduce redundancy. Nowadays, website templates are becoming increasingly popular because templates allow website design, website content, web programming and web authoring to be performed independently. Using websites templates effectively will cut down the maintenance time and increase overall site efficiency [6].

4. System implementation

In this paper, the web content management is implemented first as a case study. To control and provide the different site templates for changing the

design of the web site, so template switcher module is also implemented as an additional service.

The following main modules are constructed and integrated in this system.

- Posting news contents
- Switching design templates/themes

The following modules are also created as parts for above main modules.

- Rating news
- Poll for users
- Searching contents in Myanmar Language

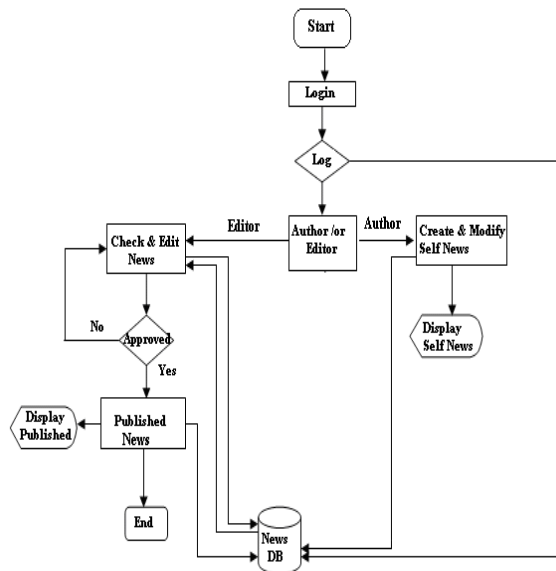


Figure 3. Diagram for posting contents

As in figure 3, the system flow diagram showed the process of posting news in step by step.

Although public users can do the member registration, viewing and searching news by date/time, ratings and editing user's own profile, but for posting news contents, the users are needed to register before logging into the system.

When a user is logging into the system, the system will check user name and password through the login process. If the user has an author right, it is possible to write news, editing own news and deleting it. But it has no rights to edit others' posted news.

If the user has an editor right, it is possible to write, edit all news in the system and can publish news to the home page as use case in figure 4.

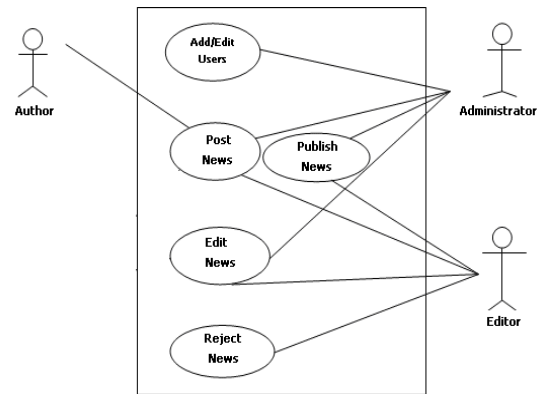


Figure 4. Use case for publishing contents

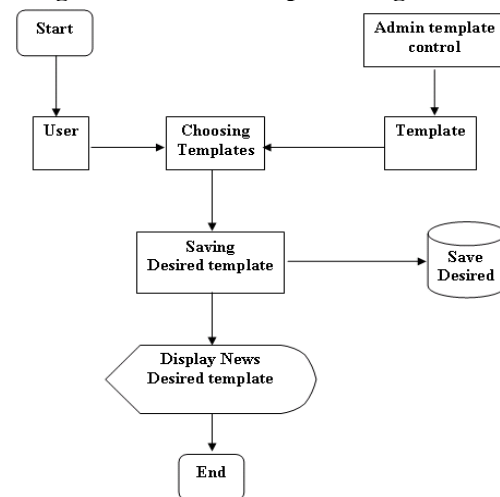


Figure 5. System flow of selecting/switching web design template

As the above diagram shown in figure 5, the users are needed to register to select a template to change the web interface of the system.

Administrator will provide available templates and control those templates.

Registered user can choose the favorites templates available in the template chooser in home page.

The selected templates will be saved into the cache and can support as the attractive and favorites interface until the next change.

5. Steps and Results of the system

The aimed result of the proposed system is displaying the various colorful web pages by using design templates selected by each user.

The following figures will show the step by step processes to change the design of web site.

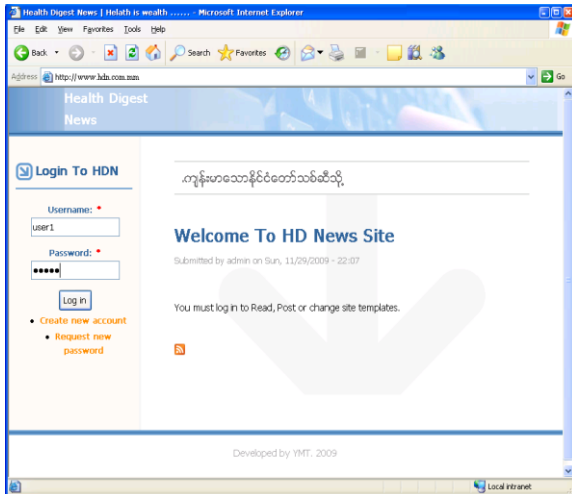


Figure 6. Simple home page of the system

As in the above figure 6, the simple home page design with user login module will be displayed first.

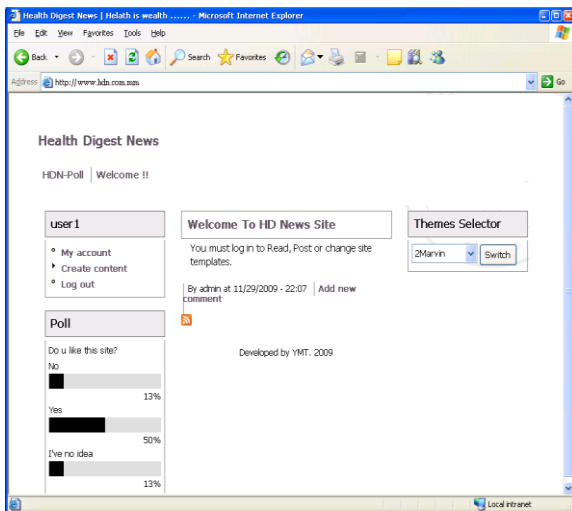


Figure 7. Template selector page after login

The above figure 7 described the registered user is logging into the system and templates/themes selector is also available at the upper right corner in this page.

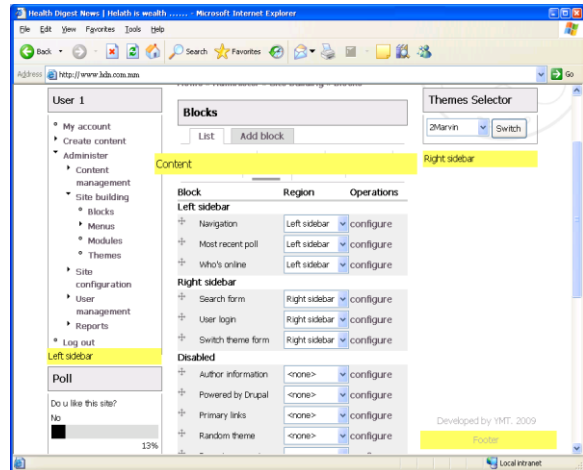


Figure 8. Customizing and positioning each template module

The registered user not only can select colors and designs of the templates but also modify the positions of each module of the system as in figure 8.

For example, the user can display the poll module to the right column; move the other modules to the left column as desired.

After selecting template and modifying the modules position, the new and colorful design will then be displayed for that user as in figure 9. This design will be saved for that user and provide every time the user login and visits to this site again.



Figure 9. New template layout 1

When the user needs new design layout, the user can perform the above steps again as in figure 7 and 8 and the new design will then be displayed as in figure 10.



Figure 10. New template layout 2

Figure 9 and 10 (both result pages) can be compared with figure 6, which displayed the web page before modifying by the user.

This system is experimented by using 7 different templates in different color and design. It also showed the satisfactory results with all templates.

6. Conclusion

Any user can make a visit to the web site and browse the health news content of the system. The rating system and poll are also available for the users. Every user can search news by typing a part of news contents in search box or search page. As this system provides mechanism for storing and searching news in both English and Myanmar languages, so users can also search news in Myanmar language.

Registered users will get a chance to select and change the various design web templates which are not available to unregistered users or visitors. Special users including author, editor, and administrator can get access to writing, editing, publishing news contents and administering the web site according to their accessible levels.

7. Limitation and further extension

This system is solely based on content management in theories but not in personalization. Although some part of users' actions can save into the system but all of the users' actions such as history can not be saved into database and so it is not available to present when that users visit this site again.

Another limitation of the system is in uploading images and media files. When a user needs to upload the media in their news, the media files must be first uploaded to the web folder or another web server. Users need to know the URL of that media files and point that media to attach with the news instead of uploading with text at the same time.

As an extension, this system can be implemented to integrate with personalization for each user and needed to upgrade in uploading features. Media files should be uploaded with the text contents at the same time instead of uploading and pointing those files separately.

8. References

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