

Web Content Management System (WCMS): A Need

Neeraj Rohilla

Panjab University,

Chandigarh, India

neeraj1rohill@gmail.com

Abstract: *The first thing that a visitor sees on a website is the content present on its web pages. It is generally difficult for many organisations to keep their web site content as up to date as per their requirement. Most of the time there are delays getting new content online. Due to the large volume of content and unwillingness to deal with the coding and other technicalities in the present-day context necessitates development and deployment of Content Management Systems. This research paper is aimed to justify that why so many organisations are turning to CMS for their website development*

Keywords: Content, WCMS, Template, Database.

1. Introduction to CMS

CMS (Content Management System) is computer application software that plays the roles of publishing, editing, modifying, organizing, deleting, and maintaining content from a central interface. CMS came into the picture around 1990's. A CMS is like a washing machine for shirts it allows them to be used over and over again. Content Management Systems provide reusable templates, and reduce the time necessary to post serialized content.

2. WHAT IS WEB CMS (WCMS)

WCMS are specific CMS that focus on the management of digital data for web applications. WCMS quite literally allows you to control and manage the content within your web site - without technical training, experience with HTML or web site design. Using this system you can very easily insert, delete and edit text or images in your web site on the fly. Most people new to the world of CMS websites cannot imagine how they could ever manage their site themselves. A WCMS typically requires a systems administrator and/or a web developer to set up and add features, but it is primarily a website maintenance tool for non-technical staff. Further WCMS gives the foundation for collaboration. It offers platform for multiple authors for editing, publishing & participation and multiple users the ability to manage document.

3. PROBLEMS WITH STATIC WEBSITE (NOT BASED ON CMS)

Before going into the detail reasons and advantages of WCMS it is necessary here to discuss the limitation of non-CMS software application. In Non-CMS system

3.1 Templates and content are tied together that makes it difficult to update without the help of a web developer. So dependency exists on web developer of any content modification.

3.2 Even a small modification in content is very time consuming as every time one has to approach a web developer

for every modification and one has to follow the whole procedure again required for modification.

3.3 frequent content modifications are very costly here as every time website owner has to pay fee to web developer.

3.4 Changes cannot be tracked and authorized for publication so difficulty in reverting to old versions also.

3.5 less flexibility exists.

4. Reasons for Using WCMS

Before web content management software was available, businesses relied on static pages being uploaded directly to servers in order to publish their websites. For numerous reasons, many organizations continue to maintain their websites this way, and have serious limitations on their ability to improve and scale their presence on the web.

Following are the top reasons that why many organizations are now using CMS for their website

4.1 Templates — Rather than creating new pages from scratch, a CMS allows you to rely on templates you can reuse to create as many pages as necessary with the correct layout and functionality on each one. This enables your site to maintain a consistent look as it grows.

4.2 Available in most modern WCMSs is the ability to expand a single implementation (one installation on one server) across multiple domains, depending on the server's settings. WCMS sites may be able to create microsites/web portals within a main site as well.

4.3 Multiple editors — if you need to give website editing access to several people, there's no better solution than a content management system. It's the best way to provide limited, focused access to the areas of your site that need to be updated without opening up the entire site for unintended or unsanctioned changes.

4.4 Governance — a true content management system designed for multiple content contributors doesn't stop at content creation and publishing. It allows you to customize and

implement an editorial process or workflow to ensure all content is reviewed and approved by the right people prior to going live.

4.5 Content focus — by separating your website content from its design, your content management system allows your marketing team to focus on producing more content to drive website traffic, improve SEO, and convert customers. Removing design and technical skills from the process makes it more efficient.

4.6 Global changes — Through the use of templates, reusable files and assets, and various features, a content management system makes it easy to make changes across your entire website without having to update each individual page. Whether it's a phone number, your logo, or a header image, you can update or change them globally when using a CMS.

4.7 Ease of use — Making the management and upkeep of your website a coding-free non-technical task helps you get updates live faster, and also opens your site to more content from a larger group of contributors.

4.8 Security — A content management system doesn't just protect your website from overly enthusiastic content editors. Installed as an application behind your firewall, a decoupled CMS can also ensure that your site is more secure and can't be easily exploited by hackers.

4.9 Analytics — If you're still uploading static pages, you might not have a good way to collect data on content performance and effectiveness. Measuring the impact of your content is critical to making it a business driver, and a CMS should enable you to track performance, or easily integrate third party tools to help you do so.

4.10 Versioning ---- Like document management systems, CMS software may allow the process of versioning by which pages are checked in or out of the WCMS, allowing authorized editors to retrieve previous versions and to continue work from a selected point. Versioning is useful for content that changes over time and requires updating, but it may be necessary to go back to or reference a previous copy.

A content management system is not required for running a website, but it makes that job infinitely easier, and the time spent running the site more productive..

5. Working Model of Web CMS

Following diagram shows the working of web content management system

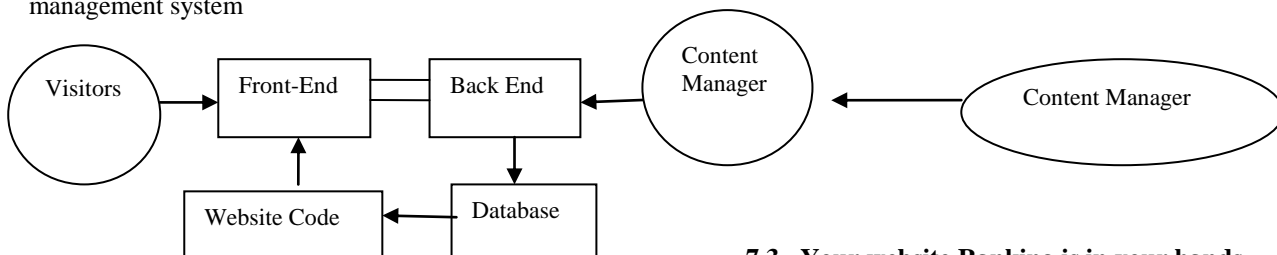


Figure 1: Working model of WCMS

6. Types of Web CMS

A WCMS is can be commonly seen in three types

6.1 Offline processing

Also known as "static site generators" pre-process all content, applying templates before publication to generate web pages. Since pre-processing systems do not require a server to apply the templates at request time, they may also exist purely as design-time tools.

6.2 Online processing

These systems apply templates on-demand. HTML may be generated when a user visits the page or it is pulled from a cache. Most open source WCMSs have the capability to support add-ons, which provide extended capabilities including blog, forums, web stores, contact management, photo galleries, etc. These are often called modules, nodes, widgets, add-ons, or extensions.

6.3 Hybrid systems

Some systems combine the offline and online approaches. Some systems write out executable code (e.g., JSP, ASP, PHP, ColdFusion, or Perl pages) rather than just static HTML, so that the CMS itself does not need to be deployed on every web server. Other hybrids operate in either an online or offline mode.

7. Benefits of Web CMS

7.1 It's easy for the non-technically minded

Not all users have the same comfort level with technology, but the basic CMS functions of writing and publishing content, and slightly more advanced ones of adding media are usually easy for everyone to grasp. In fact, anyone who can use word-processing software can use a CMS for the basic functions – so you don't even have to spend much time on training.

7.2 It improves site maintenance

Need to change something on your site? Without a CMS that can mean having to trawl through hundreds of pages, making changes on each one. With a CMS, the underlying architecture is the same so you can make maintenance changes, update the CMS software and add functionality without breaking the site. In fact, with the right CMS, it may keep itself up to date automatically.

7.3 Your website Ranking is in your hands

A CMS allows you to make changes to your site in real time if you wish, and these changes will be reflected in your search

engine rankings. You can more easily stay on top of your success and make quick adjustments when needed to continually improve your site's effectiveness.

7.4 Change Layout yourself

You can change CMS website layout yourself. You can change module position, enable/disable them its very user friendly so need to worry about single line of HTML code.

7.5 Self control

You know your business better than any designer or developer and if you are getting chance to explain your business or edit your content yourself then it would be like getting golden egg. CMS gives you facility to manage your content yourself without paying a single penny to developer.

8. CONCLUSION AND FUTURE SCOPE

Nowadays, much of the interest in developing CMS is referred to the possibility of creating easily manageable websites of great dimensions. Actually the potentiality of content management systems is greater, mainly in terms of company support in managing all the phases from content creation to its storage and publication in many formats. CMS suits in such cases which are concentrating on just maintenance of data .Many WCMS are available in the web domain now. The future work will concentrate on finding the best CMS based on the need and nature of the organisation.

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Author Profile



I, Neeraj Rohilla received my Master in Computer Application degree from Maharishi Dayanand University,Rohtak in 2005.I have more than 11 years of experience in computer science field.Currently I am working with Panjab University Chandigarh.