Using a CMS: A critical analysis from a professional point of view

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ABSTRACT: *In this article we will present some very important points when choosing to use a CMS to develop a digital product. The idea of this study is not to convince never to use a CMS, but to show some important points that can change the opinion of those who want to use such a tool in the digital world. We will address some positives and negatives points and then look closer from a professional perspective.*

KEYWORDS: *CMS; Develop, Digital; Product; Wordpress*

I. INTRODUCTION

The actual importance of the Internet and especially the Web originated significant changes in our society. These tools have revolutionized the way the individual relates to his environment, promoting new forms of communication, more dynamic and flexible. The Web 2.0 changed the gravitational point of online communication, making the approach to be spent on access to people and not access to information [1]. CMS allow individuals to interact in an innovative and collaborative, permanently altering how they relate.

The term CMS means Content Management System. In short, it's an online system that allows you to get a website up and running in a practical and quick way [2]. But it is clear that it is not only that, because you can do websites, more or less complicated, with almost no technical knowledge. The great advantage of the CMS, as the name says, is the possibility of managing dynamic content in a simple way, that is, maintaining a blog, online store or other type of website that needs to be constantly updated. Imagine having to do weekly or even daily updates manually. It wouldn't work [3]. So CMS is the ideal solution for everyone who needs a website that is not static and momentary. Seems like an ideal option, however in this article we will see that maybe it's not.

II. HOW IT WORKS

Imagine that you work in a newspaper or magazine. Your audience is always looking for new news and topics, so you and your team need to produce new texts every day. But this creation process is complex and, for each new content, you need to create the entire technical structure of the page. To make matters worse, each update has to be done manually. In such a scenario, can you imagine how expensive and time-consuming this work would be? It would make it impossible, in terms of time and money, for the vehicle to continue to exist.

In addition, assuming you were able to keep the project up, the need to have highly trained professionals with the necessary technical knowledge could also greatly limit the appearance of new businesses.

Fortunately, our reality is quite different. To solve this type of structural and operational problem, the CMS was created.

The concept of CMS represents, most of the time, free software, created and disseminated by programmers around the world, in which a person can create their website, blog and other options, with extreme ease [4].

And when we use the expression "most of the time" it is because although the main market options are free, there are also paid options. One of the greatest assets of the CMS is its simplicity of use that allows it to focus more on the strategy and less on the operational part. The user does not have to worry about the technical part of the creation. He just needs to feed a database with the content he wants to present, simply and quickly. All content is managed efficiently and the structure is designed to guarantee a better performance of the pages, a good user experience and the possibility to scale the site without problems in the future[5].

III. POPULAR CMS

There are several CMS, WordPress, is the best example of a popular content management system. Beyond WordPress software, other popular content management systems include [6]:

- o Joomla
- o Drupal
- o Magento
- o Wix

Why is Wordpress the most used?

WordPress has two options available to users: a WordPress.com or WordPress.org platform. The first is a service that offers free hosting of blogs and websites using WordPress software. The second is an open source platform, which you can download for free from the official website and install on the server of your choice. To use the free platform, you will need a domain and hosting.

It is important to clarify about these two ways of using WordPress.

No more, they share a very similar system. One tool features a website management interface. On this screen, you can display several categories, each with specific functions for your website or blog [7].

Among these functions, we can highlight:

- Add, program and edit posts for the website or blog as if you were writing in Word, for example;
- Insert and edit media files, such as images, videos and audios;
- Create new pages, menus, categories and tags for the website;
- Moderate visitor comments;
- Monitor basic access data;
- Edit the appearance of the website;
- Manage permission levels for page administrators;
- Create, add, edit and delete plugins and extensions;
- Export and import data from the website or blog.

IV. WHY YOU SHOULD USE A CMS

A CMS is similar to a framework (a frame of reference) of a pre-structured website, with basic features of: usability, visualization and administration already readily available. It is a

system that allows the creation, storage and administration of content in a dynamic way, through an Internet access interface. The advantages of use are:

- **Practicality**

The first major advantage of content managers is their practicality. In the past, to create a website on the internet it was necessary to develop the HTML code and upload it to the server. With the CMS all installation is done through the graphical interface, requiring few configurations to be ready and working.

- **Flexibility**

Content managers are generally developed in modules, so it is possible to install only those that are relevant to the company's website. Need a calendar? A blog? Or do you just want to create pages? Content managers allow you to do any of these things and choose the features you want or not to use.

- **Customization**

The layouts of the content managers are known as themes. There are countless available, both free and paid. But in addition it is also possible to develop and customize your own theme, from scratch or by modifying the CSS code of existing themes. This way your website gets an exclusive design.

- **Content update**

With these applications it is much easier and more practical to update the content of your website pages. Everything is done through graphical interfaces with text editors, without the collaborators having to know about HTML. This also facilitates collaboration and publications categorized according to each author or user of the system.

- **Control levels**

Content managers also have different user patterns. The site administrator has full control of the system. But it is also possible to assign medium impact roles according to the publisher's profile or also designate authors who can change only part of their content. This way you control not only the content but also who has access to the information.

- **Development costs**

The content management applications are already ready with their base and structure all assembled. Many of them are even free and you only need to purchase a hosting service. This dramatically reduces development and maintenance costs [8]. It is only necessary to hire a programmer or web designer if you want to modify the CMS source code, and many of these changes can be made directly through the application's administration interface.

V. WHY YOU SHOULD NEVER USE A CMS

No CMS, free or not, dispenses the role of a person responsible for the hosting environment of the CMS or for feeding the content. Despite the advantages, there are also some disadvantages of use:

- **Hard at the beginning**

A big mistake that most beginners make is that they think they can create a professional website logo on the first try. Or with little or no study, you can use a tool. This is not true in most cases. If you never use a CMS, you will suffer at the start to achieve your goals. You need to be willing to learn and invest in that time.

- **Velocity**

CMS websites have non-optimized code, which means long and often unnecessary code. Consequently, your website will take longer to load.

- **Safety**

By using a CMS to create your website, you are exposing it to vulnerabilities that affect all other websites that use these platforms.

The popularity of the tool not only attracts the attention of new users, it also attracts spammers and hackers, and precisely for this reason, it is always subject to online attacks.

o **Scalability and flexibility**

As there are difficulties in dealing with scalability, it is quite common for your website to slow down with higher traffic flows. There is also not so much flexibility to make root changes.

Increasing the size of a CMS project can be painful. The more plugins you add and the more complex your theme, the more you will feel that the site's efficiency will drop. The idea of expanding the functionality of the site with plugins is great, but it has a cost: the more plugins, the more work you will have to update them and the slower your backend (and perhaps frontend) will load.

Many plugins and themes are developed by companies that will ask you for extra attention and this can be costly in the long run, especially in the time dedicated to managing your website.

o **Customization**

With websites developed in CMS there is customization, but it is limited to the theme you chose. If you try to change the theme it is complicated to make changes due to the "garbage" generated.

o **Optimized for search engines**

As mentioned, these websites have a lot of non-optimized code, having a lower performance in search engines..

o **Updates**

To avoid intrusions, you need to keep your site up to date, especially if you have a reasonable number of plugins added, and this is a frequent job.

o **Plugins**

Although there are free plugins, over time, if your intention is to expand and make your page more and more professional, you need to add paid extensions. Their values vary according to their complexity, but they are usually high and paid in dollars.

o **Limited**

It is limited and forces you to be consistent, leaving little room for creativity.

VI. CONCLUSION

Usually experienced programmers don't like CMS development experience. Progress is often slow and new and more efficient technology, such as Laravel for example, are often safer. CMS will always have a place in the world of technology as a fantastic tool for bloggers and simple websites that manage content. But deciding on the right tool for the right job is crucial for customers and developers. It is up to the developers to listen carefully as the individual requirements of a project to certify that the CMS has chosen the resources and the structure necessary to execute with excellence. Like so many technologies CMS technologies are easy to learn, but difficult to master. It is also impossible to know if you are getting a quality product.

If the project you are going to develop is just a static website or a blog, you can consider choosing a CMS, but, if it is not, the best is to choose other technologies.

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