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Review of Web Content Management Systems and their Increasing Demand in Market

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Abstract: ***Content Management System (CMS) enables a user to create, edit, view and deploy the websites without having the technical knowledge to create a website from scratch. CMS-based Web applications have increased their presence in the market because of the advantages they offer with regard to information and content management. There are many CMS available in the web development tools market. In this research paper we'll discuss about CMS available in market like wordpress, wix, squarespace and shopify for analysis and how they have grown over the years ,and how they are performing in today's world. There are various features provided by CMS On the basis of these available features the CMS are comparatively analysed. The user can choose best CMS according to their need and technological platform.***
Keywords: Content Management System , Wordpress , Squarespace , Shopify , Wix, web applications.

I. INTRODUCTION

Websites are some of the most important instruments for publishing and extracting information, they are used in a business or an educational environment. Typically, in academic organizations, websites are hosted independently, which means that their content is prepared, edited and published by the owner, without the need for outsourcing. If the organization owns a static website, updating it is a difficult and time-consuming activity, since even the slightest content alteration requires the webpage to be fully reloaded. On the other hand, building a dynamic website requires relatively advanced technical skills in web development. An affordable solution to these problems is to use Content Management Systems (CMSs), as they hide the code from the users and allow one to develop and maintain the site through a friendly interface.

CMS consists of two elements:

1) *Content Management Application (CMA):* In the Content Management application, content manager can be able to manage the creation, modification, and removal of content from a Web site without having the knowledge of HTML (Hypertext Markup Language) or CSS (Cascading Style Sheets) or may not be expert as a Webmaster.
2) *Content Delivery Application (CDA):* In the Content delivery application, website is updated to use and CDA elements complies the information to update the website.

In this paper it is tried to study and analyse different CMS available in market and how their popularity is increasing in online marketplace.

II. LITERATURE REVIEW

The purpose of this literature review is to examine previous research, emphasize leading research studies, identify trends and establish a theoretical framework. For the development of content management system (CMS) we conducted a systematic literature review (SLR) study to investigate the development of research on content management system (CMS). SLR approach is done by searching, collecting and analysing scientific literature that aims to answer the research questions that have been determined [1]. There are many researches that have been done regarding web content management systems. Those researches deliver many contexts of Web CMS, such as methodology of development, field, component, feature and technology. The important of this study is to present insight to developer or research before developing a Web CMS in several cases [2], [3].

One of the methods that can be used for systematic literature review (SLR) is the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA).

PRISMA method was originally an SLR method that is widely used in the humanities sciences, but the last few years adapted by other fields of science one of the field of computer science, as done by [4],[5],[6]. Based on the above background, this research will use PRISMA method to perform the systematic literature review (SLR) as a preliminary study to obtain comprehensive in-depth information about content management systems (CMS).

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III. WORKING OF WEB CONTENT MANAGEMENT SYSTEM

The web content management system works in the following way:

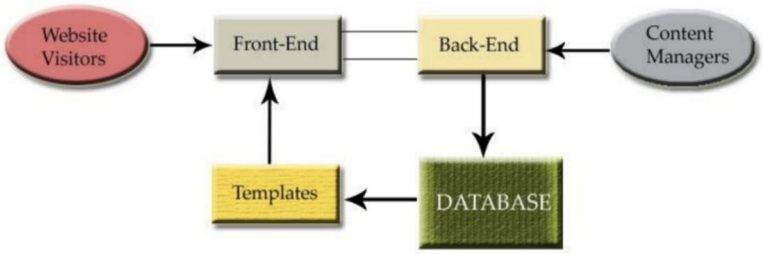


Fig.1 working of website visitors and web CMS [7]

Working takes place in two main parts:

1) User /client parts

2) Server parts- database attached here.

A Web content management system uses a programming language to fetch the information stored in the database, format it and then present it to the viewer. There are various programming languages that can be used in the background of a website. A web content management system is usually run using a database like MySql. There are different databases available and some are only compatible with certain operating systems (online and offline).

In the following diagram it is shown working of client, server and Database relationship in web Content management System



Fig. 2 Working relation of client ,server and database in web CMS [8]

There is important point to note in the above figure are

a) PHP code is subset of wordpress webpage.

b) Database name of PhPMySql Database is same as Wordpress Database name.

There are virtual illustration stands that both (WordPress and PhpMyadmin/Phpcode) are different. But Php code are so arranged that it will works as subset of wordpress. In the above diagram MySQL is database server and it is Open source and free. MySQL is supported by thousands of lowcost Linux and Windows hosts, which means a very low barrier to entry for anyone wanting to start a WordPress or a database driven website. Also phpMyAdmin is a tool written in PHP intended to handle the administration of MySQL over the Web.

IV. CONTENT MANAGEMENT SYSTEMS

There are many number of both open source and non open source-based CMS are available for enterprise and personal use. For our research purpose we have studied the the top content management systems which account for maximum market share and popularity on the internet.

A. Wordpress

Wordpress was started in 2003 with a small line of code to develop the typography of everyday writing. Now it has been developed into a full-fledged self-hosted web designing tool in the world, used on millions of websites and visited by millions of people every day. Since the starting year of wordpress it has grown so much that more than one-third of the entire Internet is powered by wordpress and it is the best overall usage CMS available [9]. According to a survey on the Internet, the estimated usage of WordPress is 63.8% [15]. Wordpress is open source and is based on PHP and MySQL. Wordpress provides 55000+ feature added plug-in and template design. Wordpress is currently the most popular website design system in use on the Internet.

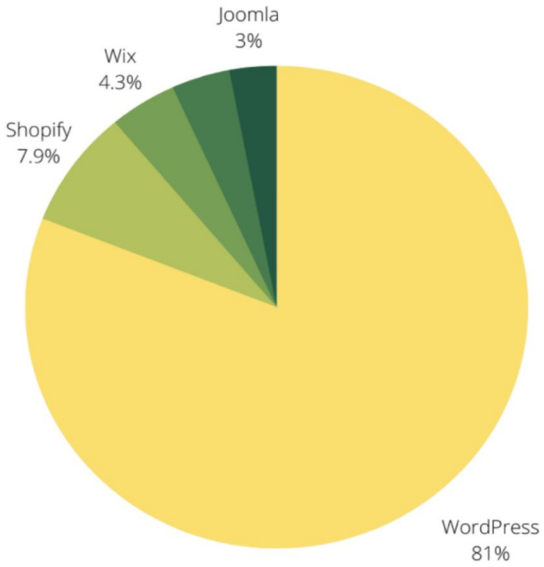


Fig. 3 Market Share of WordPress [11]

B. Wix

Wix was founded in 2006 and from its starting to this time it has gained immense popularity on internet. Wix.com reportes 200 million users in year 2021 and the number is increasing year by year [12]. Wix is branded as a website builder. It is not same as a traditional Content Management system, it does have components and applications that function for content management. For beginners that want an all-in-one solution for creating a website from scratch, Wix will be a top choice to consider. With Wix, we can create a website, edit your content, and publish everything on the web without writing a single line of code [9].

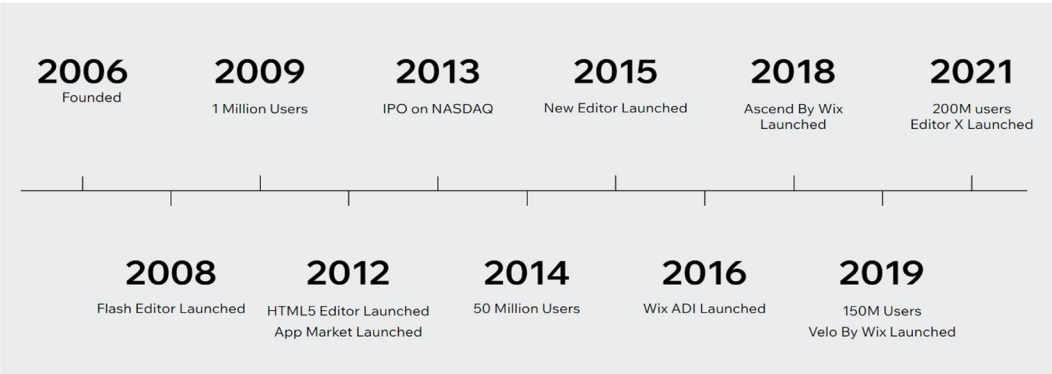


Fig. 4 Growth of Wix over years [12]

C. Shopify

Shopify is a platform for businesses of all sizes to create an online store. It offers users a customizable platform, an easy-to-use checkout process, and a wide range of features. Shopify has been growing rapidly since it was founded in 2004. In the past few years, it has become one of the most popular e-commerce platforms in the market. In 2018, Shopify was used by over 1 million businesses worldwide. Shopify is the most popular ecommerce platform in the world, powering over 800,000 businesses in 175 countries [13]. According to a survey on the Internet, the estimated usage of Shopify is 5.8% [15]. Shopify is the best CMS platform for e-commerce sites. It's an all-in-one website builder and content management system with built-in payment processing for selling online [9].

D. Squarespace

Squarespace was founded in year 2003 as a solution to let people without web development skills build and maintain their own websites, Squarespace now powers millions of sites worldwide (nearly 3 million, according to Internet statistics company Builtwith.com) [14]. It is best CMS available for creative designs that is why it is top choice for creative professionals. According to survey of W3techs the estimated use of squarespace is 3.0% [15].

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V. GRAPHICAL COMPARISON OF CONTENT MANAGEMENT SYSTEMS



Fig. 5 Separated graph plotted to show the dominance of wordpress in the market, Image from Search Engine Journal [10]

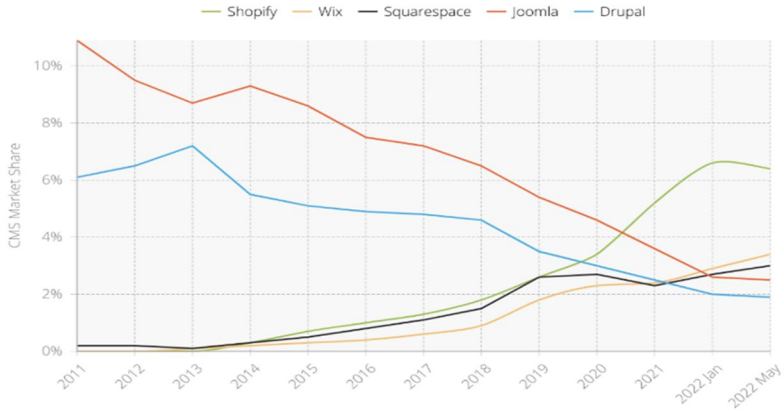


Fig. 6 This graph is plotted to show the comparison between CMS's, Image from Search Engine Journal [10]

1) WordPress market share has increased 16% since 2011 but declined by 2% this year.
2) Wix has increased 17% this year.
3) Squarespace has increased 11% this year [10]

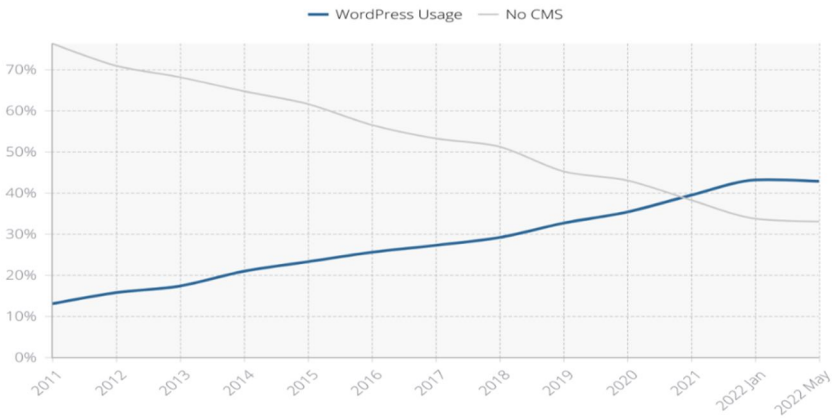


Fig. 7 No CMS Vs Wordpresss, Image from Search Engine Journal [10]

Between 2011 – 2022

a) Websites with no CMS system have declined by 57%.
b) Websites with WordPress have increased by 227% [10].

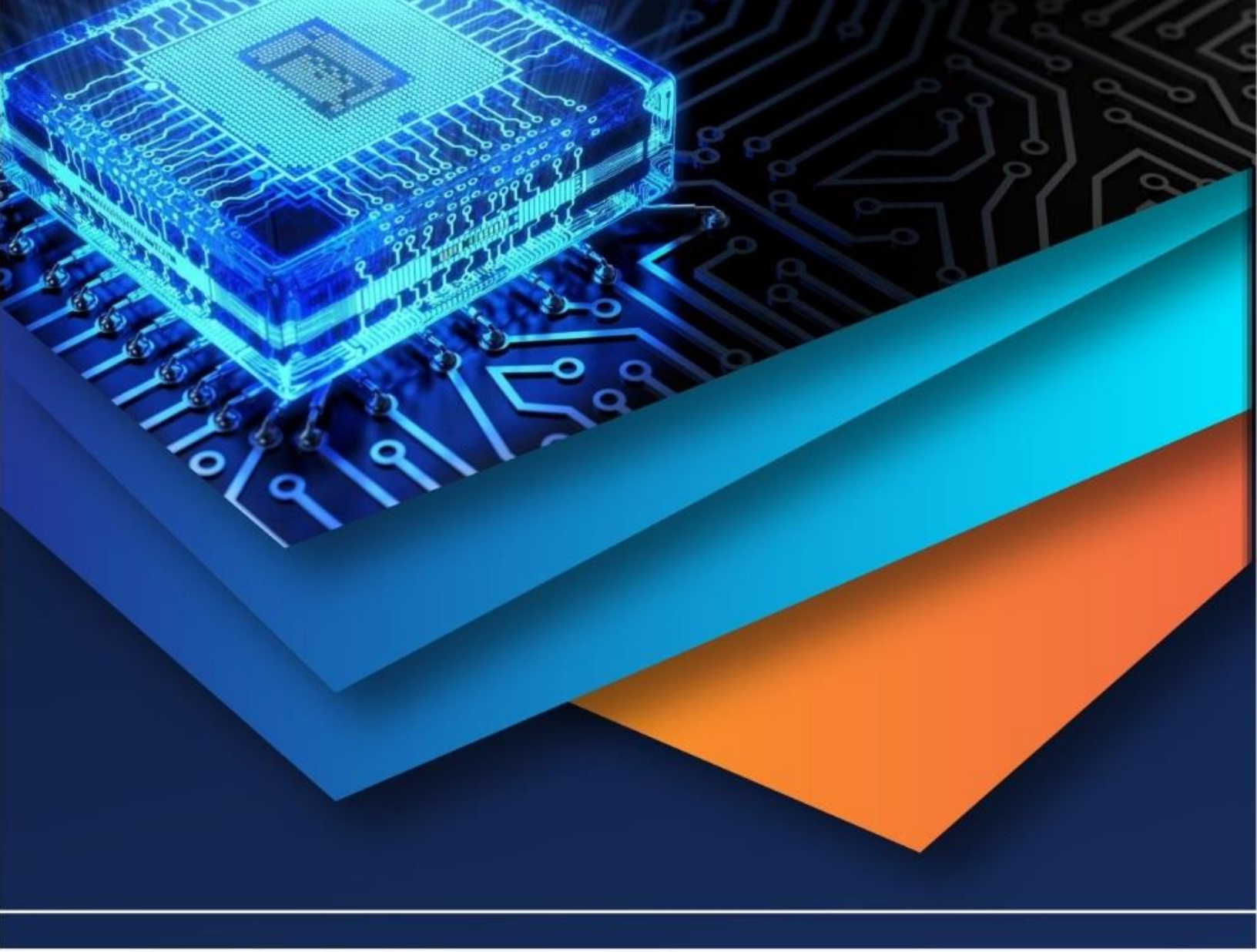
VI. CONCLUSION

The amount of content consumption and creation is increasing rapidly on internet, because of which the demand of content creation and management tools is also increasing. Content management system gives people a medium to express themselves more creatively by allowing them to make, share and publish content more easily . As we have seen in our study that the presence of wordpress has increased enormously over the years and it is dominanting the market but still there are other CMS's like wix, shopify and squarespace whose presence on internet has also increased and they are performing good in their own niche. According to W3Techs, 68.9% of websites have a CMS, and Netcraft reports 1.15 billion live hostname websites. From this, we can assume that the current market size for content management systems is approximately 796 million websites [10] and increasing day by day.

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