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Assignment 2

A content management system (CMS) is an application that is used to manage web content. It allows multiple contributors to create, edit, and publish. Content in a CMS is typically stored in a database and displayed in a presentation layer based on a set of templates.

Content management systems provide many different capabilities such as content creation, content storage, workflow management, and publishing. All the content can be stored in the same place, increasing consistency among users.. Differing levels of authority will allow certain users access to privileges others won't have. This creates a clear divide of who is working on what, ensuring no one working outside their area of concern. Content management systems effectively streamline workflow management. While it depends on the CMS, publishing is typically easy to do because the content is usually organized and readily available to go live at user discretion.

Five solid open source content management systems include: WordPress, Ghost, Drupal, Joomla, and Microweber. WordPress is the most popular CMS today. It requires little knowledge of programming language and has a massive community that is eager to help those with questions or problems. WordPress has thousands of plugins and templates at user disposal. Sometimes plugins cause issues with efficiency and a lot are necessary to keep up with other content management systems. Making modifications also require some knowledge of PHP language.

Ghost is another popular CMS tool, however, it is meant more so for bloggers. Unlike WordPress, Ghost uses the more visually appealing Markdown as its editor. Ghost also has far fewer themes and plugins. It is written in Node JS, so users have to use hosting that supports JS apps.

Drupal is another open source CMS. It works by installing and uninstalling modules that contain features. Themes are used to change the look and feel of the website. It uses PHP scripts and can run on windows and mac. Since Drupal is enterprise level software, it will require someone with some expertise to use its full potential.

Joomla is an open source CMS similar to Drupal in that it requires someone with expertise to get the most out of it. It does not have as many add-ons that WordPress offers. There is a slightly bigger community around Joomla than Drupal. The slight increase in users does not make a difference for the number of themes and add-ons available, coming in well behind Drupal and Wordpress. Joomla does make up for some of its shortcomings with a competent support system.

Lastly, Microweber is an easy to use open source CMS. It uses a drag-and-drop environment to keep it simple for users and offers many different modules and themes. It can also be managed and edited on the go using a phone or tablet. It even lets you track website statistics in real time. Some features include payments, client lists, and custom fields.

Five proprietary content management systems include: Sitefinity, Expressionengine, Kentico, Sitecore, and Episerver. Sitefinity is a CMS developed by Telerik. It is best suited for enterprise use. It is easy to use, requiring little knowledge of programming languages, although big customization changes require some expertise. Unlike other content management systems, Sitefinity is an all-in-one system. It is not limited to just blogs or other specific types of pages. Sitefinity does have some issues when publishing and updating the site where it slows the site down and sometimes won't be usable until it is done.

Expressionengine has solid support, 3rd party contributions, and an easy to navigate admin UI. It has a solid community that is knowledgeable and helpful. While it is fairly well rounded, it is not better than any other particular CMS. It is only solid at best in most categories, and lags behind in other areas such as ease of use and speed.

Kentico is a widely used CMS with well-known customers such as Mazda and Starbucks. In addition to being a CMS, it also offers e-commerce and digital marketing. While Kentico has plenty of partners, it does not have a ton of users like most of the open source content management systems which means it has a much smaller community behind it. It does come ready with many applications tools to use.

Sitecore comes with e-commerce, optimization, analytics, and more out the box. It has some drag-and-drop tools and pre-built components, but not nearly as much as systems like WordPress. The pricing model is said to be rather confusing to partners and the customer base. Updates have improved on some of the problems it used to have, such as advanced filtering and funnel analysis.

Lastly, Episerver is fairly easy to use. It allows multiple users with varying levels of privilege. It is easy to see the changes that have been made and by who. The customer service aspect of Episerver is behind many of the other systems. They do not have a lot of partners in North America and lack the support others have to offer.

Of all the systems to choose from, I would suggest WordPress. It is by far the most popular CMS today. The support system is an important part of any CMS, and WordPress has arguably the best of them all. In addition to that, it is very easy to use so there should be very few, if any, problems when creating, editing, and publishing.

Payment systems on the other hand, are systems meant to accept different monetary inputs and properly charge and handle said money. There are many different types of PMS, both in the way of physical transactions and companies that create each system.

Since the world is so digital, most of the utilized PMS at this time are all surrounded by technology. The positives and negatives coincide with all the pros and cons of technology in general. Payment systems are so much quicker than previous transaction methods. They can allow for one-click purchases online. With faster ways to purchase it can lead to increased sales. Finally, the ease of use for both the company and customer is extremely beneficial.

The first negative is that the system itself, and any technology needed comes with a large cost. Secondly, there are concerns with the security of the transactions. From hacking to fraud, these are issues that can come with an insecure system. Lastly, technical problems are not uncommon and can easily pop up within payment systems.

Overall though, the benefits of having payment systems are astronomical. Loss of customers would be significant without a well run payment system, for any business.

Square is one of the top payment system companies. They offer both mobile and cloud access which is a huge benefit to many companies looking into it. They also offer POS transactions which is obviously needed if there is a physical store. Their online features also offer gift card management, recurring billing and signature capture. Although they do not include payment processing services or the capability to utilize checks. Their payment is like many other systems where it is 2.9% + \$0.30 per transaction. There are additional costs if a company wants to setup POS.

Shopify is a top used payment system. They offer many different plans per month that come with different benefits. Their advised plan is \$80 and comes with a large variety of benefits. To start it off they give up to 5 staff accounts as well as servicing of up to 5 stores. They also offer free shipping and email campaigns. There are not too many flaws when it comes to Shopify, but if you want a full serviced account the monthly fee gets raised significantly.

Revel is a payment system that is strictly for physical stores. They run around Apple products, so the installation and continued care cost is fairly high. It would be \$650 for setup of the system and an additional \$99 per month, per terminal. The return for the high cost is the ease of use. Most people know how to operate an iPad and the system ran is extremely easy to utilize.

Stripe is a system that is meant more to be utilized for online services, but still has the option for in person systems. One of the top features they boast about is the recurring payment system for their customers. Statistically, companies that have turned to Stripe have increased revenue by 6.7%. With the Stripe UI toolkit, the checkout process can be completely customized toward the requirements of the customer. They also allow discounts for organizations that have unique business models. The price is 2.9% and \$0.30 per transaction. There are additional fees for international cards and ACH transfers.

PayPal is one of the most widely known systems and for a good reason. It is the most commonly used digital wallet in the world and it's ease of use is incredibly high.

With PayPal for ecommerce the following may be used: debit and credit cards, PayPal, Venmo, and PayPal credit. The cost is the same as two of the previous options at 2.9% and \$0.30 per transaction. Where it becomes extremely expensive is with international sales. There's a 4.4% transaction fee as well as a fixed amount depending on the country.

Apple Pay is a huge "up and comer", that is improperly named with its ownership of 54% of the mobile vendor market. Apple Pay is extremely easy to use and has "one click" purchasing after being set up. But many times, a click is not even needed due to the usage of facial and fingerprint recognition. The looming problem is Apple products are needed to use Apple Pay. So unless a customer is an iOS user, they would be out of luck. Great news for iOS users though is that there are no fees or charges to using Apple Pay.

The final system we will look at is Google Pay. It is much like Apple Pay but does not require users to be apart of the iOS world. It is specifically made for ecommerce and mobile shops. Since it is knew many users are still becoming aware or getting acquainted with the program, but it is easy to use. Integrating it into ecommerce platforms is extremely easy as well. Gain access to the API and it can be added to a site. It can also be linked with other payment systems.

Since the money that is brought in is donationas, systems that charge per transaction should be avoided if possible. 2.9% on large donations for research, can really add up. Therefore, Google Pay should be utilized since there are no transaction fees. The total sum of donations and grants can be paid without a slice being removed. Also, if any other systems are needing to be implemented that can be added later without missing a step.