**Organizational Mission and Value**

Michigan Legal Help Program is a non-profit legal program that provides legal aids and connects the local resources (such as court, library, or nonprofit legal aid agencies) to those who need to “handle civil legal problems on their own without a lawyer.” (Michigan Legal Help, n.d.a) They provide legal information through various channels, including physical self-help centers located in public libraries, the online chat forum, LiveHelp, through which users can seek help from the trained law students, and official website of Michigan Legal Help which provides self-help toolkits and articles for specific civil legal issues. The mission is to bring the “accurate and trustworthy legal information” (Michigan Legal Help, n.d.a) to the public and educate them about their rights and responsibilities.

**Summary of Challenge**

Michigan Legal Help is trying to improve the workflow for the content management of their official website. The process they have now for posting a new article on the web page is complicated and redundant. The physical documentation for tracking the workflow is sometimes repetitive and burdensome. Therefore, the Michigan Legal Help staff are seeking for the efficient workflow for uploading the new content and reviewing the past content they had. Thus Michigan Legal Help has asked our SI 501 team, JAXY Studio, to investigate the current workflow they have and provide the suggestions on how to improve the efficiency of the process.

**Three Questions**

1. What is the content management system?
2. Who is using the content management system and for what purpose?
3. What obstacles users may encounter and how can they face the problem?

**Background Research Report**

1. **Introduction**

The official website of Michigan Legal Help is a bilingual (English and Spanish) website visited by thousands of people who are seeking for self-aid legal tools and resources every day. There are three main content attorneys from Michigan Legal Help Program working on the articles and updating the contents on their website. The Michigan Legal Help team will work cooperatively to decide which subject and what kind of content should be drafted. During the editorial process, they will work with local legal communities and external experts, such as judges at a local court, to finalize the content in order to provide legitimate information with plain language for the public access.

In this paper, I want to tackle the overarching question of “how to improve workflow for uploading new content on to the website” by examining the content management system. With the attempt to answer the abovementioned sub-questions of the content management, I believe that by understanding the historical background and the contextual-based variety of the content management systems will lead myself and my team to a better approach to solving our client’s problem.

1. **Background of Content Management System**

Before talking about content management system (CMS), we should define what is “content management” first. But before defining “content management,” the word “content” should be defined properly.

According to *Web Content Management* written by Barker Barker (2016), humans create content with an editorial process in order to prepare information that can be consumed by the public after the content is published. Thus he defined content “the information produced through the editorial process and ultimately intended for human consumption via publication (Barker, 2016).” He argued in the book that content management has existed as long as the content because human seek for the method to manage content once the content was created (Barker, 2016). However, though the necessity of content management has appeared far more earlier than in 20th century after the computer was invented, CMS suggests the software tools used for managing content nowadays. According to a *Dictionary of Social Media*, CMS is “software tools for constructing and editing online resources such as websites, blogs, and wikis using templates (Daniel & Rod, 2016)” The definition indicates the digital feature CMS has. A CMS allows users to create, review, approve, compare, and edit the content with a certain degree of automation in order to effectively manage the content (Barker, 2016).

Barker categorized content management into four categories:

1. Web content management (WCM)

The management of content primarily intended for mass delivery via a website. WCM excels at separating content from presentation and publishing to multiple channels.

1. Enterprise content management (ECM)

The management of general business content, not necessarily intended for mass delivery or consumption (e.g., employee resumes, incident reports, memos, etc.). This flavor was more traditionally known as “document management,” but the label has been generalized over the years. ECM excels in collaboration, access control, and file management.

1. Digital asset management (DAM)

The management and manipulation of rich digital assets such as images, audio, and video for usage in other media. DAM excels at metadata and renditioning.

1. Records management (RM)

The management of transactional information and other records that are created as a byproduct of business operations (e.g., sales records, access records, contracts, etc.). RM excels at retention and access control.

Though the lines in between are blurry and some of them may overlap, in the case of Michigan Legal Help, the main focus will be put on WCM because the problem happens on their workflow with their web content maintenance.

1. **Users of Web Content Management System**

When the content is created, management is required consequently so the “creation and distribution of information” (Boiko, 2005) can be controlled over.

It is not hard to imagine how time-consuming and laborious for an organization to maintain and update all the information on the website. Therefore, a system that provides the functions of creating, formatting, revising, publishing and so on is vital when users need to take care of the great amount of complex content. In order to meet the needs, there are some fundamental functions should be included in a WCM system (Bergland, 2004):

* Content creation and authoring:   
  Creating the information/content intended to be delivered to mass
* Content governance:   
  Having editorial and production control over when and where content becomes available
* Content publication:   
  Releasing the content for delivery to the live site
* Content aggregation:   
  Bring content from various sources together
* Content delivery:   
  Implying delivery via HTTP using browsers and similar devices. (p. 5)

However, while dealing with WCM, usually not all the members of the organization have the access to the WCM system, but only a small group of people have the authorities. This group of people will form up a content management team that include the following roles (Barker, 2016): editors, site planners, developers, administrators, and stakeholders. Here I am going to introduce the responsibilities of each role.

In the Michigan Legal Help, there are six people in the content management team. The manager and the three content attorneys are all editors of the content. Editors are responsible for “creating, editing, and managing the content (Barker, 2016)” inside the system. Some common roles are approvers, marketers, user-generated content/community managers, or translator.

Site planners are responsible for designing the website. The possible categories are content strategists, user experience (UX) designers and information architects, and visual designers (Barker, 2016). In the Michigan Legal Help, there is one attorney taking charge of the website.

However, our client does not have a developer in their WCM team. Developers should be responsible for “installing, configuring, integrating, and templating” (Barker, 2016) the system to match the needs. The possible different roles are CMS configuration, Backend (server) development, and Fronted (client) development or templating.

Administrators are responsible for continuing the operation of the system and the associated infrastructure. In the WCM team of the Michigan Legal Help, this person is mainly in charge of uploading the contents. But for a larger organization, this role can be server administrator, database/storage administrator, or CMS administrator (Barker, 2016).

The last role Barker mentioned is the stakeholder. Stakeholders are responsible for the results that the CMS can manifest. This group of people may not have direct interaction with the CMS, but their goal as trying to increase revenue and reduce costs and risk by looking to a CMS can always decide what and how to develop a system (Barker, 2016). In the Michigan Legal Help, this group of people is the related legal community and experts outside of the organization.

Different roles might be covered by the same person that depending on the workflow and the editorial process of the content. Not all the roles have the same authorities in the WCM system. For example, administrators may not have the access to the section of content creating in the WCM system, but they might have the authority with the access to the section of a content publication.

On the other hand, editors may only have the access to the content creation and authorizing section in the system. The reason why the organization deals with information in this way is sometimes because of the data security. But many makes it in this way just to avoid complexity. People do not want to know more than their duties require. The chaos might be caused unintendedly due to the confusion of the WCM system if people can get access to the portion they are not in charge of. However, with a small group of people dealing with content and separate work roles through the whole process, these can cause other problems. Since the people who are creating the content might not be the one who is responsible for posting, the outcome can be unexpected and the publishing process can be painstaking.

1. **The Obstacles**

Some organizations face the difficulties when the contents are taken care by separate roles communicating poorly vertically and horizontally.Others are facing hardships when the content appears on a different section of the website is managed by a different group of people, which might be a totally different content management team. For instance, an organization which includes two to three departments may co-work on the content management of their official website. And each department may have its own content management team. However, the way they manage the content is different. Thus the tone and the format of similar materials may vary on the web page, which will cause inconsistency and augment the difficulties for the visitors of the website to search and absorb the information.

Here is the list of common “content management-related pains” (Bergland, 2004) that organizations may experience with their WCM system:

* + The websites are out-of-date and cost too much to update.
  + Trouble controlling growing volumes of content.
  + Inability of bringing visitors back again.
  + Inability to meet demands of diverse internal and external consumers.
  + Information cannot be brought together from a variety of sources.
  + Extra costs are incurred because information is stored and maintained in multiple. versions for use in different sites and devices.
  + Web development and management costs are too high.

If the website is bilingual or trilingual, we can imagine that these problems will be doubled or tripled. Think about the mirrored website with all the content written in another language. If the content on the original web page is outdated and scattered in different sections, the mirrored website will encounter exactly the same situation. The people and time spent for updating the original version of the web page will be required as well for fixing the translated version. It may even request more amount of efforts for the mirror site because of the needs of translation. Ironically, “content management systems (CMSs) are often central to organizational efforts (Tatiana & Dave, 2015)” Because of globalization, the content nowadays has to adapt for international audiences (Tatiana & Dave, 2015). Translation now becomes one the “top drivers” affect an organization to implement a CMS (Dayton and Hopper, 2010).

1. **Evaluation of Content Management Systems**

I would like to apply the model of the publications-development life cycle to evaluate the CMS. A publications-development life cycle includes five phases, which are information planning, content specification, implementation, production, and evaluation (Hackos, 1994). Basically, it is quite similar to the editorial process of generating the content by asking “What should the subject of the content be? Who is the intended audience of the content? From what angle should the subject be approached? How long should the content be? Does it need to be supported by media? (Barker 2016)” But a publications-development life cycle covers more. It provides a way to evaluate the process of how to plan, organize, establish, communicate, and ensure that the tasks are “performed well and as scheduled (Hackos, 1994).”

Hackos (2007) argued that “content-management systems were developed to include the management of structured, tagged content. The addition of automated workflow systems to content management systems supports the movement of content through the information-development life cycle.” In other words, CMSs should make writing, editing, reviewing and approving documents easier. Furthermore, CMSs should be tools that “support authoring in XML and implementing a topic-based information architecture (Hackos, 2007)” and can handle technical information easier for the usage in multiple context and media.

CMSs “enhance the authoring process are increasingly sophisticated tools for editing and reviewing electronic copy, including systems that allow multiple reviewers to see each other's comments, avoiding duplications and reducing the number of contradictory suggestions (Hackos, 2007).” In order to evaluate if CMS the organization used now is customized and helpful, the following questions should be asked and tested (Hackos, 2007):

\* Do the tools we use today enhance our productivity?

\* Would new or different tools increase our productivity?

\* Do our tools allow us to work better and faster, rather than harder and slower?

\* Do the tools we use introduce errors into the process rather than reducing the possibility of error?

\* Is using the latest tools more important to our team than developing the best information products for our customers?

\* Is using the latest tools important to retaining employees who want to keep their skills up to date?

\* Is the work we use the tools to perform encouraging us to make the best use of our time and energies?

\* Do the tools encourage us to perform activities that deliver value to our customers, or are the tools a distraction that occupies our attention to the detriment of delivering customer value?

By asking these questions, it will be obvious to know if the CMS is a supportive tool or a barrier to the tasks (Hackos, 2007).

1. **Concluding Remarks**

WCM can be a huge issue in any organization nowadays because most of the organizations have their own website and need the techniques to manage their contents. Each organization may have its own culture and concerns of doing it, but the main goal is the same: to keep the information on the website clear and accessible in an efficient way.

The purpose of this background research report is to understand the background knowledge of the content management systems in order to have a better understanding of the problem that Michigan Legal Help encountered. The research on WCM provides a good insight to understand how to achieve this goal for our client. During the research process, Deane Barker’s *Web Content Management* (2016) provides a thorough understanding to the WCM and can be a useful resource for the future research*.* The further research should be done when the interviews are analyzed.

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