A Survey on Content Management System, Software's and Tools

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Abstract: This paper contains a survey of content management system, content management process, architecture and working. Also contains different types of tools and software. Content Management (CM) is the process for collection, delivery, retrieval, governance and overall management of information in any format. The term is typically used in reference to administration of the digital content lifecycle, from creation to permanent storage or deletion. The content involved may be images, video, audio and multimedia as well as text. A Content Management System (CMS) is a computer application that supports the creation and modification of digital content. It is typically used to support multiple users working in a collaborative environment. A Content Management System (CMS) is a tool for creating and managing digital content such as documents, text, web pages, videos and images. A content management system (CMS) is a software application or set of related programs that are used to create and manage digital content. CMSes are typically used for Enterprise Content Management (ECM) and Web Content Management (WCM). An ECM facilitates collaboration in the workplace by integrating document management, digital asset management and records retention functionalities, and providing end users with role-based access to the organization's digital assets. A WCM facilitates collaborative authoring for websites. ECM software often includes a WCM publishing functionality, but ECM webpages typically remain behind the organization's firewall.

Keywords: CMS, WCM, ECM.

I. INTRODUCTION

CMS features vary widely. Most CMSs include Web-based publishing, format management, history editing and version control, indexing, search, and retrieval. By their nature, content management systems support the separation of content and presentation. A web content management system (WCM or WCMS) is a CMS designed to support the management of the content of Web pages. Most popular CMSs are also WCMSs. Web content includes text and embedded graphics, photos, video, audio, maps, and program code (e.g., for applications) that displays content or interacts with the user.

➤ **Content management system (CMS) typically has two major components:**

• A content management application (CMA) is the front-end user interface that allows a user, even with limited expertise, to add, modify, and remove content from a website without the intervention of a webmaster.

• A content delivery application (CDA) compiles that information and updates the website.

Digital asset management systems are another type of CMS. They manage things such as documents, movies, pictures, phone numbers, and scientific data. CMSs can also be used for storing, controlling, revising, and publishing documentation.

Based on market share statistics, the most popular content management system is WordPress, used by over 28% of all websites on the internet, and by 59% of all websites using a known content management system. Other popular content management systems include Joomla and Drupal.
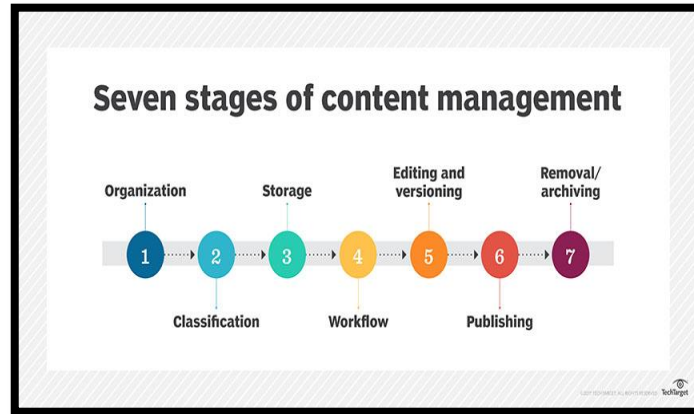
I. CONTENT MANAGEMENT PROCESS

Content management practices and processes can vary by purpose and organization. This can lead to differences in steps or terminology.

➤ The stages of the content management lifecycle are:

1. **Organization**: The first stage where categories are created, taxonomies designed and classification schemes developed.

2. **Creation**: Content is classified into architectural categories.

3. **Storage**: Content format and storage decisions are made based on ease of access, delivery, security and other factors dependent on the organization's needs.

4. **Workflow**: Rules are designed to keep content moving through various roles while maintaining consistency with the organization's policies.

5. **Editing/Versioning**: This step involves managing multiple content versions and presentation changes.

6. **Publishing**: The stage where content is delivered to users, which can be defined as website visitors or internal publishing via the intranet for employees.
7. **Removal/Archives**: The final stage where content is deleted or moved to an archive when it is infrequently accessed or obsolete.

II.   CONTENT GOVERNANCE

Content governance provides content creators with structure and guidelines. Digital content management governance can help determine priorities, provide detailed standards, assign ownership for content and provide access control. This helps to create a consistent user experience, minimize content bloat and create internal controls. Common governance tools that organizations use include content workflows, taxonomies and style guides, along with records management tools which include audit trails for compliance.

III.   GOVERNANCE STRUCTURES

Content management expert Marc Feldman defines three primary content management governance structures: **localized, centralized, and federated**—each having its unique strengths and weaknesses.

A) Localized governance
By putting control in the hands of those closest to the content, the context experts, localized governance models empower and unleash creativity. These benefits come, however, at the cost of a partial-to-total loss of managerial control and oversight.

B) Centralized governance
When the levers of control are strongly centralized, content management systems are capable of delivering an exceptionally clear and unified brand message. Moreover, centralized content management governance structures allow for a large number of cost-savings opportunities in large enterprises, realized, for example, (1) the avoidance of duplicated efforts in creating, editing, formatting, repurposing and archiving content, (2) through process management and the streamlining of all content related labour, and/or (3) through an orderly deployment or updating of the content management system.

C) Federated governance
Federated governance models potentially realize the benefits of both localized and centralized control while avoiding the weaknesses of both. While content management software systems are inherently structured to enable federated governance models, realizing these benefits can be difficult because it requires, for example, negotiating the boundaries of control with local managers and content creators. In the case of larger enterprises, in particular, the failure to fully implement or realize a federated governance structure equates to a failure to realize the full return on investment and cost savings that content management systems enable.

IV.   IMPLEMENTATION

Content management implementations must be able to manage content distributions and digital rights in content life cycle. Content management systems are usually involved with digital rights management in order to control user access and digital rights. In this step, the read-only structures of digital rights management systems force some limitations on content management, as they do not allow authors to change protected content in their life cycle. Creating new content using managed (protected) content is also an issue that gets protected contents out of management controlling systems. A few content management implementations cover all these issues.

2. EXISTING SYSTEM

The following are common types of content management system:

1. **Blogs**
- Web based platforms for publishing posts that resemble a magazine article in web format.
2. **Wikis**
- Tools that allow multiple authors to maintain the same web content.
3. **Forums**
- Web platforms for message boards based on topics, threads and messages.
4. **Web Content Management System**
- Platforms for authoring complex websites that may be highly structured such as a large news site. May include tools for working concurrently with many authors and editors such as version control.
5. **Document Management System**
- Platforms for managing documents with an emphasis on version control and security. In many cases, documents such as strategies, requirements, plans, designs, reports, specifications and policies are the primary output of knowledge workers.
6. **Media Asset Management**
- Platforms for managing valuable media such as photographs, animations, videos and music. May include tools for ingestion, conversion, annotation, cataloguing, classifying, distribution and workflow.
7. **Digital Asset Management Systems**
- Tools that manage valuable digital files such as documents and media. Supports goals such as encouraging reuse of designs and knowledge.
8. **Enterprise Content Management**
- This is related to the intranet-like tool that allows every user in the organization to access, manage and review different data. It includes documents, templates, media and other information assets. This tool is a formal way of managing and storing an organization's documents and other related contents within the organization.
- This form of content management has a different combination of functions. It functions in capturing, searching, networking of documents with digital archiving, and managing of documents and workflow. Thus, enterprise content management system focuses on business-to-employee (B2E) systems.
9. **Component Content Management System**
- This software allows you to store, access, edit and manage topic-level content. This system also manages relationships between image, table, product description and procedure. It does not manage document level but it manages each component which represents a single topic, concept or asset. The focus of this system is to track the relationship among topics, graphics, maps, publications and deliverables. It also contains an engine to create outputs for print, the web, and e-readers for publishing.
10. **Document Management System or Electronic Document Management**
- This management system allows you to store, access, and manage your different kinds of documents like PDFs, MS Word, and MS Excel. This system is often used to track documents as well and reduce paper production. The system also enables you to secure a digital copy of every document and store it digitally for quick retrieval purposes.
- There are some web-based management systems using HTML to save their file or documents. These set of policies require content to be imported into the system. The HTML format of storing the documents is created. Its main goal is to search the documents in a faster way such as keyword and full-text searching.
11. **Learning Content Management System**
- This type of content management system is used for different purposes. It enables the user to monitor the administration, documentation, tracking, reporting and delivery of digital educational technology (e-learning). This system also allows every educator to manage, store and publish their data in school. Its main function is to use and access the data for training and learning purposes.
- This system ranges from system to software for training, educational records, distributing online or blended hybrid college courses. LCMS is the learning framework that helps every student to be educated through online. The LCMS delivers instructional content, identify and assess the organization learning and goals, track the progress of those goals if achieve. Also, it supervises the learning process thru collection and presentation of the data.
12. **Electronic Document and Records Management System**
- This system allows you to create and maintain records within classification schemes. This computer program is designed to track and store all electronic records. The reason behind the creation of the electronic document and record management system is the increasing use of electronic documents in the office. Thus, the core values of EDRMS are the ability to maintain records and data over time, to declare an authentic record and protect it from

changes. Other core values involve the organization and management of records within classification scheme, management retention and disposal of records, and controlling access to track the actions made.

- Specifically, the EDRMS is suited to those organizations that are looking to integrate records of management with document management. This is being implemented in some of the government websites and public organizations to allow public access.

I. FUNCTIONS OF CONTENT MANAGEMENT

- Creating content
- Storing content
- Indexing content
- Searching content
- Retrieving content
- Publishing content
- Archiving content
- Revising content
- Managing content end-to-end

II. ADVANTAGES OF CMS

Content management system helps to secure privacy and currency of the content and enhances performance by:

- Ensuring integrity and accuracy of content by ensuring only one user modifies the content at a time.
- Implementing audit trails to monitor changes made in content over time.
- Providing secured user access to content.
- Organization of content into related groups and folders.
- Allowing searching and retrieval of content.
- Recording information and meta-data related to the content, like author and title of content, version of content, date and time of creating the content etc.
- Workflow based routing of content from one user to another.
- Converting paper-based content to digital format.
- Organizing content into groups and distributing it to target audience.

III. A CMS OFFERINGS:

- Easy content creation and editing for non-technical content contributors.
- Access rights for security.
- Structured workflow processes for content approval.
- Archival and versioning of content.
- Templates for consistent output.
- Content check-in/check-out services for distributed users.

IV. EXISTING CMS TOOLS

Software and technology companies have created platforms and tools to help enterprise   teams manage their content. These tools include private and public calendars, collaboration tools, robust content management systems (CMS), and features that automate publishing and generate insights to help enterprise teams spend more time creating content and less time managing it.

Some of the best content management tools and content management systems for enterprises and have listed them below:

1. ContentDJ

ContentDJ is content curation software that puts content at your fingertips. ContentDJ determines the best time to publish your content to get maximum results when you use ContentDJ as a content management tool.

Key Features:

- Puts social media content on one page so you can be more productive.
- Drag and drop to schedule social media
- Integrate with Twitter, Facebook, LinkedIn, WordPress, and others
- Custom color coding.

2. Active Calendar

Active Calendar is calendar management software that allows enterprises to control the flow of information on one central calendar. Manage events, private information, events, and content with Active Calendar, a different type of content management tool.

Key Features:
- Easily share events to other websites, social media, email, mobile devices, and RSS feeds.
- Prescheduled reminders.
- Promote events to several outlets and networks with one click.
- Open and closed tagging to create filters to update web pages, social media, and digital kiosks.

3. DivvyHQ
Simplifies the content process by eliminating spreadsheets and overloaded inboxes.

Key Features:
- Dashboard gives a quick snapshot of due dates, completed projects, and current projects.
- Shared calendars to keep teams organized on the same page.
- Easy workflow management for teams of any size.
- Manage, plan, and produce any type of content.

4. WriteWell
WriteWell helps to jumpstart your content marketing projects- blogs, ebooks, articles etc. WriteWell allows you to organize your document visually in chunks, manage your research and writing on one screen, and jump start your writing with 40+ outlines and templates.

Key Features:
- Download to preferred format – word, pdf etc.
- Auto save and encrypted SSL transmission.
- Centralized writing workspace.

5. Marketing.AI
Join content marketing team on the same page at the same time with Marketing.AI. This content marketing software joins strategy with execution and provides analytics all in one place. Marketing.AI is a comprehensive content management tool.

Key Features:
- Assign tasks to authors, designers, and other content creators.
- Draft, edit, and approve content items within the collaborative framework.
- Meet deadlines and measure results.
- Brainstorm and park new content ideas in a separate location.
- Plan and assign new content with the editorial calendar.
- Manage content from drafting to publishing with collaborative workflows.

6. Curata
Use Curata's content management tools to organize content, add commentary through annotation, and publish to the right people at the right time.

Key Features:
- Searches the internet for content based on your needs.
- Manage the content flow as you tweak and tune sources.
- Self-learning recommendation engine suggests content and prioritizes by relevancy.
- Publish with one click to your target audience.
- Automatic distribution how, when, and where you choose.
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7. CoSchedule
A drag-and-drop editorial calendar for WordPress, CoSchedule helps users schedule blog posts as a team. It helps enterprise teams work even more productively because it is a content management tool that automatically send messages to your social networks.

Key Features:
- Puts your blog and social media on the same drag-and-drop calendar.
- Works right from WordPress.
- Schedule social media messages while writing blog posts – hit publish and automatically push out content.
- Effortless team communication.

8. c9 prime

Cadence9 offers "franchise-focused and multi-unit social media and content marketing solutions" to help enterprises build revenue through content marketing and social media strategies. C9 prime is Cadence9's social media and content marketing control centre. Brand control, intelligent publishing, and comprehensive reporting are just a few of the features of this content management tool.

Key Features:
- Improve content production and publishing with automated permalinking, batch broadcasting, post targeting, task cloning, and more.
- Cross-channel posting.
- Centralize all content production, approval, and publishing processes.
- Extensive role and permission controls.
- Centralized editorial calendar streamlines task assignment, review, and approval processes.

9. Expion

Expion is a content marketing and social relationship platform that is trusted by leading enterprises. With its entirely customizable interface, Expion is a content management tool that gives users information about what people are saying before and after you publish content.

Key Features:
- Give employees access to pre-approved, branded content to publish to their social networks and expand your reach.
- Smarter analytics for promoted and non-promoted Facebook and Twitter messages.
- Asset library and scoring help users keep the content they want and clean out what they don't.

10. Sprinklr

A complete social software platform, Sprinklr serves more than 750 enterprise brands. Its content planning and publishing tool helps users manage social experience and campaign publishing and gets content management under control.

Key Features:
- Create and manage digital assets across any social account.
- Publish to the best audiences at the best time with the best content.
- Track and manage every message with automatic categorization and tagging.
- Pre-built and customizable templates.
- Publish to specific and custom audiences with geo-targeting and geo-limiting.
- Account-level and role-based access for publishing and multi-tiered approval processes for every message.

11. Hootlet

Hootlet is a tool for quickly and easily sharing content to your social networks from anywhere, at any time, on the web.

Key Features:
- Post to multiple networks with one click to save time and extend your reach.
- Schedule your posts or let Hootlet do it for you.
- Find targeted content using Google, Google Maps, and Yelp.

12. Marketing Cloud

With Marketing Cloud, enterprises get a single location for all of your cross-channel content. Speak with one voice across all of your channels and create a consistent consumer experience with this content management tool from Salesforce.

Key Features:
- Create, manage, and track content from a single location to make searching, categorizing, and filtering your content easier than ever.
- Assign tags, campaign associations, and owners to your content.
- Use Predictive Intelligence to build customer preference profiles and then determine and deliver the best content for them.
- Content editor makes it possible to design and build intelligent content with drag-and-drop smart content blocks and mobile-optimized templates.

13. Marketwired Resonate

Marketwired Resonate helps enterprises connect with audiences and gives you the critical information you need to craft releases that reach the right people at the right time. Choose the platform that works best for you and then start working

with the complete, integrated set of tools for content creation, distribution, and reporting that tvhis content management tool has to offer.

Key Features:
- Identify and target the right audience.
- Create content within the platform or upload documents from your computer.
- Distribute, publish, and post by integrating all of your communications.

14.   Paper.li

For enterprises looking to engage their audiences with engaging articles, photos, and videos from across the web, Paper.li is a great solution. Create an online newspaper and put this unique content management tool to work for your enterprise.

Key Features:
- Cover all of the relevant news for your industry with niche publishing.
- Publish relevant, curated content daily to engage your audience, build relationships, and attract visitors to your brand.
- Identify influences, competitors, and experts around your brand.

15. Widen

With Widen's marketing technology solutions, you can streamline your project workflows. Create, manage, share, and analyze your digital content with content management tools from Widen.

Key Features:
- Enables multiple users to view, download, and manage digital content.
- System dashboard allows users to drag and drop and promote featured collections and spotlight smart searches.
- Creative tool integration.
- Batch upload and apply or edit metadata.
- Upload via drag and drop, upload wizard, or upload pane.
- Set release dates an approvals.

16. GatherContent

Plan and produce web content with your clients, with the help of GatherContent. GatherContent is a content development platform that helps you plan, organize, and collaborate without Word documents or spreadsheets.

Key Features:
- Collate and organize content.
- Prevent project delays.
- Prepare content for approval.
- Customize content workflow.
- Invite unlimited users and reviewers.

17. PostHeads

With PostHeads, your enterprise can work through the content lifecycle with ease. Helps teams to eliminate excessive email and lost project information with this content management tool that works in real time and is an all-in-one solution.

Key Features:
- Create content from strategically placed post options all over PostHeads.
- Approval system ensures every post is its best.
- Publishing and analytics tools.
- Calendar keeps everybody up to date on the brand and important events.
- Competitor updates at your Dashboard.

18.   Content Launch

Content Launch is a content marketing software platform with 300 expert writers
and journalists. As a content management tool, it simplifies content marketing for enterprise teams because it allows
you to manage your content in one place and distribute all of it with a single click.

Key Features:
- Easy to use content marketing workflow, management, and distribution application.
- Schedule, plan, and organize content by day, week, and month, both for individual content pieces and campaigns.
- Complimentary tools include PaperShare, Outbrain, HootSuite, and Hubspot, all within the application.

- Develop any type of content and invite others into the ideation and creation steps.

19. SocialFlow

Social Flow is a content management tool that helps you optimize and scale your social media distribution. Social Flow helps you understand how optimized publishing (how you distribute your social posts) is critical to your reach and success.

Key Features:
- Uses real-time data and intelligently sequences the distribution of your content.
- Reach the audience with relevant content.
- Automates link shortening and web analytics tagging.
- Connects directly to your CMS.

20. NewsCred

A leading content marketing platform, NewsCred simplifies the process of creating
content that will hit home with your audience. Collaborate efficiently while managing brand consistency and ensuring relevance with NewsCred.

Key Features:
- Understand your audience and create content they want.
- Manage your entire marketing process on a single platform.
- Plan, source, publish, and measure content.
- Enterprise calendar and workflow.

21. Drupal

Drupal is a free, open, modular CMS written in PHP. Used by some of the most popular websites and applications, Drupal has outstanding features. The thing that makes Drupal most attractive to enterprises is that it is flexible and modular enough to build versatile, structured content that drive dynamic web experiences.

Key Features:
- Easy content authoring.
- Reliable performance.
- Excellent security.
- Create integrated digital frameworks.
- Extend it with thousands of add-ons.
- Customize content's presentation with themes.
- Integrates with external services and other applications in your infrastructure
- Powerful and scalable.

V.   Existing CMS software vendors

There is a huge number of both free and subscription-based CMS offerings available for personal and enterprise use. The following are just a few examples of CMS platform providers:

1. **SharePoint** -- A collection of cloud- and web-based technologies that makes it easy to store, share and manage digital information within an organization.
2. **Documentum** -- Provides tools for storing and retrieving content rapidly, and is known for its fine-grained access control.
3. **M-Files** -- Uses a meta-tag-based approach to managing electronic documents.
4. **Joomla** -- A free and open source WCMS built on an MVC framework. Joomla is written in PHP and offers features such as caching, RSS feeds, blogs, search and support for language internationalization.
5. **WordPress** -- Another free and open source WCMS based on PHP and MySQL. WordPress can be utilized as part of an internet hosting service (WordPress.com), or it can be deployed on a local computer to act as its own web server (WordPress.org). It is immensely popular amongst the blogging community.
6. **DNN** -- Provides marketers with the content management tools they need to easily access all of their digital assets regardless of where they are stored, publish content to any online channel, personalize it to each visitor and measure its effectiveness.
7. **Oracle WebCenter** -- Oracle's portfolio of user engagement applications built on their own development framework and offered at a per-CPU licensing cost. Three main products make up the suite: Oracle WebCenter Content, Oracle WebCenter Sites and Oracle WebCenter Portal. One of Oracle's major features is that content can be centrally managed in one location and shared across multiple applications.

8. **Pulse CMS** -- A proprietary software option designed for small websites that enables a web developer to add content to an existing site and manage it easily and quickly. It does not require a database. It uses Apache with PHP 5 and offers user support for paying customers.

9. **TERMINALFOUR** -- This company's flagship product, Site Manager, is a proprietary software-based CMS that offers extensive multi-platform support. While the on-premises license can be costly, past updates have been reviewed favourably and it supports a broad user community platform for the exchange of ideas and peer-to-peer help.

10. **OpenText** -- OpenText's ECM Suite and Web Experience Management are aimed at the enterprise and are available both on premises and through the cloud. OpenText specializes in the management of large volumes of content, compliance with regulatory requirements, and mobile and online content management for enterprise use.

11. **Backdrop CMS** -- A free and open source CMS that is part of the Drupal project and focused on providing affordable CMS for small and medium-sized organizations. On its own, Backdrop offers just the most basic web content management features, but it can be extended with the help of the various modules available.

VI. USABLE CONTENT MANAGEMENT SYSTEMS

1. WordPress
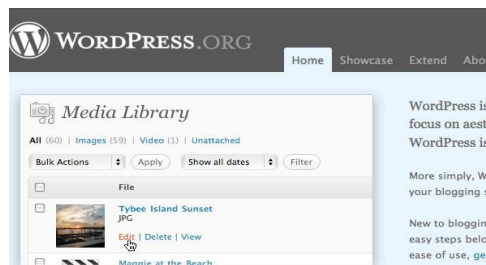
The WordPress Community is a faithful and zealous bunch. Wordpress probably has the widest base of plugins and themes to choose from. We have thousands of professional Wordpress Themes and Wordpress Plugins available for sale on Envato Market, with a full suite of styles and options to choose from. A great part about the Wordpress community is the amount of help and documentation online you can find on nearly every aspect of customizing WordPress. If you can dream it, chances are it's already been done with WordPress and documented somewhere. If you need help with anything from installing a theme to optimizing the speed of your WordPress site, you can find plenty of experienced WordPress developers to help you on Envato Studio.

2. Drupal

Drupal is another CMS that has a very large, active community. Instead of focusing on blogging as a platform, Drupal is more of a pure CMS. A plain installation comes with a ton of optional modules that can add lots of interesting features like forums, user blogs, OpenID, profiles and more. It's trivial to create a site with social features with a simple install of Drupal. One of Drupal's most popular features is the Taxonomy module, a feature that allows for multiple levels and types of categories for content types. And you can find plenty of professional Drupal Themes, which are ready to be customized and worked with. You can also grab Plugins. Drupal also has a very active community powering it, and has excellent support for plugins and other general questions.

3. Joomla!

Joomla is a very advanced CMS in terms of functionality. Joomla's installer is meant to work on common shared hosting packages, and is a very straightforward considering how configurable the software is.

Joomla is very similar to Drupal in that it's a complete CMS, and might be a bit much for a simple portfolio site. It comes with an attractive administration interface, complete with intuitive drop-down menus and other features. The Joomla site hosts more than 3,200 extensions, you can add just about any needed functionality with an extension but the Joomla theme and extension community relies more on paid resources.

4. ExpressionEngine
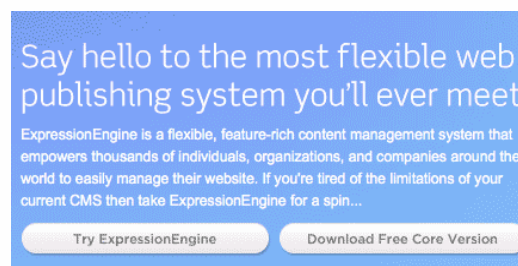
ExpressionEngine (EE) is an elegant, flexible CMS solution for any type of project. Designed to be extensible and easy to modify, EE sets itself apart in how clean and intuitive their user administration area is. It is easy to understand the layout of the backend and to start creating content or modify the look and for creating websites for clients that need to use the backend without getting confused.ExpressionEngine is packed with helpful features like the ability to have multiple sites with one installation of software. For designers, EE has a powerful templating engine that has custom global variables, custom SQL queries and a built in versioning system. Template caching, query caching and tag caching keep the site running quickly too.One of the best feature of EE that is the global search and replace functionality. Anyone who's ever managed a site or blog knows how useful it is to change lots of data without having to manually search and open each page or post to modify it.

5. TextPattern

Textpattern is a popular choice for designers because of its simple elegance. Textpattern isn't a CMS that throws in every feature it can think of. The code base is svelte and minimal. The main goal of Textpattern is to provide an excellent CMS that creates well-structured, standards-compliant pages. Instead of providing a WYSIWYG editor, Textpattern uses textile mark-up in the text areas to create HTML elements within the pages. The pages that are generated are extremely lightweight and fast-loading.

6. Radiant CMS
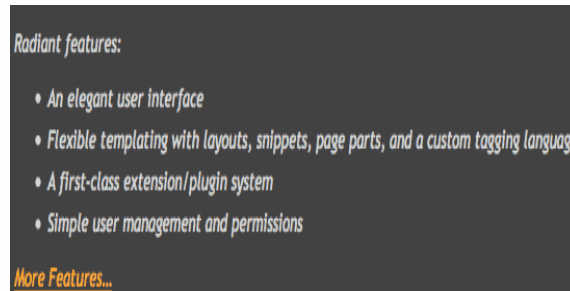
Radiant CMS is a fast, minimal CMS that might be compared to Textpattern. Radiant is built on the popular Ruby framework Rails, and the developers behind Radiant have done their best to make the software as simple and elegant as possible, with just the right amount of functionality. Like Textpattern, Radiant doesn't come with a WYSIWYG editor and relies on Textile markup to create rich HTML. Radiant also has its own templating language Radius which is very similar to HTML for intuitive template creation.

7. Cushy CMS

Cushy CMS is a different type of CMS altogether. Sure, it has all the basic functionality of a regular content management system, but it doesn't rely on a specific language.How Cushy works is it takes FTP info and uploads content on to the server, which in turn the developer or the designer can modify the layout, as well as the posting fields in the backend, just by changing the style classes of the styles.

8. SilverStripe

SilverStripe is another PHP CMS that behaves much like Wordpress, except has many more configurable options and is tailored towards content management, and not blogging. SilverStripe is unique because it was built upon its very own PHP framework Saphire. It also provides its own templating language to help with the design process.
SilverStripe also has some interesting features built in to the base, like content version control and native SEO support. What's really unique with SilverStripe is that developers and designers can customize the administration area for their clients, if need be. While the development community isn't as large as other projects there are some modules, themes and widgets to add functionality. Also, you'll want to modify the theme for each site, as SilverStripe doesn't provide much in terms of style, to give the designer more freedom.

9. Alfresco

Alfresco is a JSP is a beefy enterprise content management solution that is easy to install. A really useful feature of Alfresco is the ability to drop files into folders and turn them into web documents. Alfresco might be a little bit more work than some of the other CMS and isn't as beginner-friendly, it certainly is quite usable given the massive power of the system. The administration backend is clean and well-designed.

10. TYPOlight
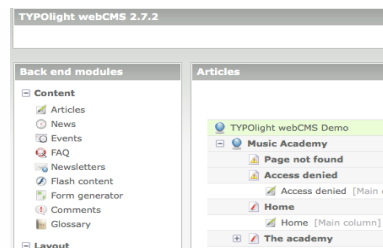
TYPOlight seems to have the perfect balance of features built into the CMS. In terms of functionality, TYPOlight ranks with Drupal and ExpressionEngine, and even offers some unique bundled modules like newsletters and calendars. TYPOlight, has so many features and configurable options. Even though the backend is thoughtfully organized, to build a site, TYPOlight could be a great fit to build a site with advanced functionality and little extra programming.

REFERENCES

1. http://searchcontentmanagement.techtarget.com/definition/content-management
2. http://searchcontentmanagement.techtarget.com/definition/content-management-system-CMS
3. https://code.tutsplus.com/articles/top-10-most-usable-content-management-systems--net-6493
4. https://en.wikipedia.org/wiki/Content_management
5. https://www.crowdreviews.com/blog/different-types-functions-content-management-system-software
6. https://en.wikipedia.org/wiki/Content_management_system
7. http://searchcontentmanagement.techtarget.com/definition/content-management-system-CMS
8. http://www.wpbeginner.com/glossary/content-management-system-cms/
9. https://gilbane.com/artpdf/GR11.2.pdf
10. http://www.cms.co.uk/types/