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Web content management: CMS for competitive advantage

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Abstract

Most organizations that consider the online channel to be central to their strategy use a Content Management System (CMS) for their website, intranet or extranet. The CMS is a company asset that has perhaps been overlooked as a source of competitive advantage. This article examines the benefits of using a CMS, and considers the needs of different stakeholders and some of the common pitfalls that organizations encounter. It goes on to consider how a CMS investment may not be delivering for your organization or where you are being locked into a poor investment. We examine some of the critical success factors when implementing a CMS, and consider how to escape a CMS dead end. We look at investment in a CMS, what good content management means for the business and protecting an investment while meeting online business needs — moving on to how leveraging a proven CMS can help shape strategy. Finally, we consider the CMS as a platform, and how it could help organizations use the web in challenging times and even give them a competitive advantage. *Journal of Direct, Data and Digital Marketing Practice* (2010) **11**, 198–206. doi:10.1057/dddmp.2009.32

Why use a Content Management System?

The ‘content’ we refer to in a web-based Content Management System (CMS) is any company asset that exists in electronic format, that is, text, images and rich media. It includes other assets such as style sheet templates and the content derived from integrated systems via either integration or syndication.

A CMS is a platform for the relevant staff to manage a structured web experience, without needing technical skills. It brings built-in compliance and security standards to allow the following:

- Content creation and contribution
- Content management and administration
- Content publishing and serving

One of the major benefits of using a CMS is that it hands direct control of content to the organization’s subject matter experts. This ensures that a corporate website is focused on the achievement of business

From static sites to interactive portals

objectives, rather than being driven or limited by technical issues. This applies equally to the private sector, public sector and third sector.

CMSs have helped corporate websites develop from static information showcases into interactive portals with rich and personalized content. If we consider that the value a corporate website has to its users is directly related to the accuracy, richness and speed of content available online, then the CMS is key in unlocking this. Giving control of content to the subject experts and making them less reliant on an IT department or agency support forms the basis of a compelling return on investment argument.

User engagement tools built in

As opposed to static 'brochure-ware' websites, a CMS-powered site opens the door to a whole host of options for an organization to engage with users. Because many features are 'out of the box', they are available to hands-on marketers and the wider organization from day one.

A good commercial CMS will offer features such as:

- WYSIWYG (What You See Is What You Get) editing with drag and drop;
- automated import of MS[®] Word and Excel content;
- blogs, forums and RSS (Really Simple Syndication) feeds;
- forms and KPI (Key Performance Indicator) reporting;
- rich media integration;
- accessibility compliance checking;
- integration-ready for email and social media; and
- workflow and approval processes.

Branded content

Corporate branding and microsites

When properly implemented, the CMS should be considered a marketing asset, helping to enforce corporate branding compliance. Further, intelligent use of templates and stylesheets allows content to be separated from presentation to create pre-approved designs. Furthermore, an online re-brand can be achieved more rapidly and cost-effectively.

Centralized management of this kind delivers efficiencies and cost savings by allowing changes to be synchronized across multiple sites as a single activity. In this way, a CMS can ensure that the organization's branded content can be prepared for distribution via a variety of platforms such as web, Personal Digital Assistant (PDA) and phone.

A CMS also gives flexibility to web managers, with the ability to create microsites without starting from scratch. Content can be managed across multiple sites and assets shared, with the option of alternative designs on a campaign microsite, for example.

Protecting your web content

As a company asset, content is most valuable when it is kept up to date, and is accurate and easy to find. This applies both externally to

Protecting your content

search engines and their ability to index a site, and internally for onsite search. A CMS that is easy to use and provides users with tools such as an accessibility checker can inform a content strategy that gives a superior experience compared to competitor websites. Out-of-date web content reflects poorly on the business and discourages repeat visitors. Inaccurate content exposes the organization by threatening its credibility, and is ultimately a legal risk.

Thankfully, a sound CMS protects the value of content by automating publication processes; building in workflow, approvals and timed content publication; and giving control back to the appropriate business experts. This experience can be enhanced by smart integration with other systems offering the powerful promise of personalized content.

The value in a well-implemented enterprise CMS

If an enterprise CMS is well implemented, it will have been tested against quality criteria and will deliver value in less tangible areas such as those shown in the below table.

Web Information Architecture	Enablement of a clearly structured website that can evolve with the organization and the needs of users
Re-purposed content	Content that can be stored in a structured manner and re-used in other channels
Personalized content	Integration with business systems such as CRM to deliver personalized web content
Strategic value	Adoption and recognition within the organization to shape and communicate the organization's business strategy
Stakeholder approach	Enablement of business-driven requirements analysis, to identify and address stakeholder needs
Customer retention	Customer recognition and loyalty for improved retention
Transferable skills for staff	Better-informed staff and training framework
Design flexibility	Appropriate and manageable look and feel, and a reduction in creative spend
Clear KPI measurement	Clean implementation of analytics for marketing to inform acquisition strategy

Value to stakeholders

The value of the above to stakeholders can be seen to exceed the CMS licence cost over a short time period. Longer term, this builds a compelling return on investment case. A CMS that is aligned with the business goals and serves its stakeholders pays for itself, and can be seen as a competitive advantage. Of course, this applies only if it is implemented correctly.

The three CMS dead ends

Given the potential advantages a well-implemented CMS can bring, why do so many organizations go wrong? When a CMS is business-critical and has increasing demands upon it, many design-led agencies are simply not set up to cope with this level of complexity. And where an in-house system is being used, multiple departments often work in silos.

In our experience, there are three main scenarios where an organization has found itself in a CMS dead end.

The homegrown CMS

A homegrown CMS typically has limited features, and simply cannot match those in a supported product. After all, a commercial CMS may have upwards of 250 man-years of development in its architecture and out-of-the-box features. These features are there because of user feedback and study of market trends, and are delivered via a formal roadmap — and are unlikely to be addressed cleanly in an in-house system.

Typically, in-house developers are forced to play ‘catch-up’ to keep pace with increasing demands. An example would be the needs of a marketing department that demands search engine visibility and accessibility/usability compliance — but these are unlikely to have been built in to a custom CMS. This leads to a situation in which already-stretched IT teams are retro-fitting features that are expensive and difficult to support.

Custom functionality is often developed in an *ad hoc* manner, and certainly not in a way that would enable it to be deployed outside of the CMS. In-house IT staff are a valuable resource, and it is not good use of their time to develop functionality from scratch when it is available in the form of plug-and-play features in a good commercial CMS. Further issues surface when platform alignment is required, and integration with other systems, for example CRM, can lead to escalating costs if not well managed.

Finally, training for users can be difficult to deliver in the *ad hoc* environment of a homegrown CMS, leading to poor adoption of the system and lack of buy-in.

The proprietary or agency CMS

The dangers of lock-in

Being locked into a proprietary agency CMS brings its own issues, with continual investment in custom functionality development and support. There may be benefits in terms of some functionality re-use where another agency customer has developed a feature and this is sold at less than development cost to other agency customers. However, it is unlikely that the ‘feature’ has been developed in a way that would exactly suit other users. In other words, you are often getting someone else’s ‘hand-me-downs’.

Agencies that position themselves as ‘digital marketing agencies’, ‘web design agencies’ or ‘full service agencies’ can often fall short on the critical aspects of an effective CMS that demand a formal approach to customer needs and specialist skill sets.

Other areas of risk include

- security vulnerabilities;
- poor editing and content-administration features;
- lack of integration with Microsoft Office® products;
- non-standard approach to content storage;

- unorthodox approaches to application architecture;
- inability to cope with web 2.0 functionality;
- poor accessibility and search engine visibility;
- low likelihood of being 'product managed' with version control;
- lack of a clear upgrade path;
- poor document management; and
- lack of content re-purposing.

Finally, should the customer wish to switch supplier or the agency to undergo change, then this has an immediate risk implication. It compromises the means to manage the system and raises questions surrounding intellectual property rights and migration issues.

The poorly implemented commercial CMS

Even a CMS with a good reputation can fail to deliver value if poorly implemented. Typically, it can be sold to a subsection of stakeholders but fail to meet the needs of those outside the selection process. And often the CMS 'implementation' is treated more as an 'install', with insufficient effort put into considering stakeholder needs and understanding how the new CMS will be able to deliver as the organization evolves to suit changing business conditions.

This is often characterized by

- inappropriate publishing rules;
- ill-considered and confused Information Architecture;
- poorly developed templates and Cascading Style Sheets;
- poor integration with Microsoft Office®;
- CMS features not being leveraged or enabled;
- the 'Christmas Tree' effect with excess nice-to-have features;
- unstable and insecure sites;
- poor accessibility compliance;
- poor search engine visibility and return on search advertising;
- browser incompatibility;
- unmeasurable usage reporting; and
- dissatisfaction among content originators and web editors.

Meeting stakeholder requirements

To gain full value from a CMS, it is important to identify the relevant stakeholders and their requirements. The sort of tools and techniques employed to assess and describe requirements could include:

- Research
- Interviews
- Workshops and brainstorming sessions
- Benchmarking
- 'Proof of concept' investigation, scenarios and user journeys
- Prototyping

Requirements gathering process

The resulting requirements will address the needs of each stakeholder type. For example, ‘Users’ define the system’s functionality and ultimately make use of it; ‘Assessors’ are interested in the system’s conformance to standards and legal regulation; ‘Testers’ test the system to ensure that it is fit for purpose; ‘Maintainers’ are charged with day-to-day continuity and so on.

As the project progresses, it is important to keep in mind the shifting needs of each stakeholder type. This means running checks at every stage on, for example, compliance, security, marketing needs and scalability. Testing needs to include testing for vulnerabilities, Payment Card Industry compliance, and performance under load and browser compatibility.

Migrating to an effective CMS

Where the organization has an existing CMS, it is normally possible to extract some value from an implementation. Once an organization has recognized that there are business advantages to operating a well-implemented commercial CMS, the natural step is to plan how to make the change and protect those elements that retain value and can be migrated, such as

- Information Architecture — if there is a valid hierarchy, then a managed migration will retain that, and build on it without complete architectural re-engineering;
- content — migrate valuable content in a controlled and rigorous way;
- how content is stored, for example reworking of templates and Cascading style sheets (CSS); and
- custom functionality — can be enhanced if users like what they already use.

Retaining value

These areas are often easily remedied in a re-implementation — the value is still there. There are clear benefits to using the available user features as appropriate rather than simply re-inventing what was offered before under a new platform.

Case study: Recovery of poorly implemented commercial CMS

Situation

A major UK approvals body had identified online as a primary channel and a website as key to strategy. They had selected a market-leading CMS, which was installed by the incumbent partner agency. Issues arose when the CMS started to be used in a real-life setting. Once installed, users started noticing problems with areas such as

- styling issues due to bad CSS practice;
- CMS functionality — lack of basic cut and paste;
- in-site search not returning meaningful results;
- homepage content issues with editing;

- browser compatibility not picked up by testing;
- navigation issues and poor user experience;
- security loopholes;
- low levels of accessibility; and
- poorly developed custom functionality.

In short, the website was failing almost all of their stakeholders.

Approach

The organization had suspected that the issues involved the implementation and acted swiftly to address them. Fortunately, they had a professional decision-making team composed of stakeholders from IT and marketing, plus board-level support. Our team was engaged to diagnose and re-implement the CMS, and conducted an audit to uncover issues arising from the previous implementation.

The audit resulted in

- new and appropriate Information Architecture;
- templates and CSS that worked cleanly;
- security issues addressed;
- usable search functionality;
- integrated custom functionality; and
- a solid platform for ongoing development.

Outcomes

In the space of 2 weeks, all issues were understood and most were addressed. The implementation resulted in a system that met the stakeholders' needs. User experience was vastly improved and at the same time the organization's online assets were protected. Reworked templates and CSS style sheets were implemented. Rather than struggling on with the CMS installation they had, the institute was able to make the most of their investment with a fully functioning website for their members and meet all web editor needs. Since stabilization, a number of other organization sites have been moved to this platform along with custom functionality.

The CMS as a platform for growth

A CMS is about more than just creating, editing, managing and approving content.

When planning to implement a web CMS, the main concerns are typically over the features that are used to develop, manage and publish online content. The ability of the CMS to facilitate web editors' tasks, secure information and deliver content in ways that enrich the web visitor's experience is paramount. This includes being able to re-purpose content, render content for different devices (such as mobiles and PDAs) and ensure that Google and other search engines are able to index content effectively. But there is significantly more to an effective

Enriching the web experience

CMS implementation. Even where the actual content origination and management demands are not high, a CMS can give other advantages.

For example, a feature-rich CMS can shape strategy and reduce ongoing development costs. Features that would normally involve many weeks — or even months — of development are often included, out of the box, or as relatively low cost options, and can be trialled to assess business benefits. But this is still only part of the possible value.

A web CMS can be considered a platform. If delivered well it will build on the underlying technology, whether Net or J2EE, and deliver business-specific features and data-integration services. Crucially, it can result in less development effort than if the features had been developed as standalone applications.

Custom functionality deployed in a CMS will be able to inherit properties from the CMS. Functionality development becomes easier, and is able to be re-used in different ways throughout a website and other web systems in the organization. The CMS can be used to enforce access rules and ensure that content delivered by custom functionality — perhaps derived from other integrated systems — can be rendered in line with publishing rules.

Considered as a platform to deliver custom functionality, a well-implemented CMS provides

- a secure environment for deployment;
- services for exception-handling;
- controlled access to different user groups;
- presentation tools and services;
- a large reduction in lines of code;
- reduced development timescales;
- reduced testing and better reliability;
- simpler administration and reduced training; and
- a wrapper for custom functionality development.

And above all, gains come in project clarity, with different teams being able to concentrate on look and feel, templates and CSS builds, and Information Architecture design — while requirements specialists and developers can concentrate on the development of custom functionality and the inherently risky integration aspects of a project.

Get your CMS implementation right and as well as providing a system for originating, managing and publishing web content, it can also be considered as an environment for custom functionality, integration, QA, consistency, collaboration and evolution.

CMS supplier selection

When selecting a CMS supplier, the process needs to identify all stakeholders (such as marketing, IT, users, customers, HR, etc) and their requirements. Different stakeholders will have different needs, so a formal requirements-gathering approach is recommended.

There is a large choice of well-known and respected CMS suppliers such as Sitecore and Alterian, as well as open source alternatives.

A platform for collaboration

Other considerations should include the financial stability of the company and whether the licensing model gives sufficient flexibility to the customer.

Resources such as www.cmswatch.com provide a huge amount of detail and can be used to research a CMS. A reputable UK resource such as the reports issued by Econsultancy can also be consulted. Finally, speaking with an experienced agency can provide real world insight into how CMSs are being applied today.

Summary

Organizations that take online seriously can gain significant benefits from a well-implemented CMS. For those already doing so there are many aspects to consider, and there are bound to be areas that can be improved. But in your quest for improvements and possibly re-development, spend some time considering what may be wrong and above all what may be right. Remember, you are not alone — your competitors will be going through a similar thought process.

In reality there are likely to be shortcomings with most online presences. If it is powered by an ‘in-house CMS’ or an ‘agency CMS’ then you may want to review your overall strategy. The apparent and hidden costs — medium and long term — will be onerous, and may leave you high and dry if there is a technology step change.

There will be areas of great value in your CMS implementation, and it is important not to lose the value in the lessons learned. If you have a commercial CMS product at the core of your online presence then it may be worth looking into implementation issues, as many good CMS products are simply not properly implemented or utilized. But don’t throw the baby out with the bathwater.

A CMS at the heart of strategy

If you can ensure that your CMS platform is able to support your organization’s online aims, is stable and usable, meets quality standards and can be independently managed, then for creative needs you can select an agency for what they are best at — design, content and interactive segments. But ensure that whoever implements your CMS understands the real issues so that you get the full benefit and longer-term competitive advantage it can bring.