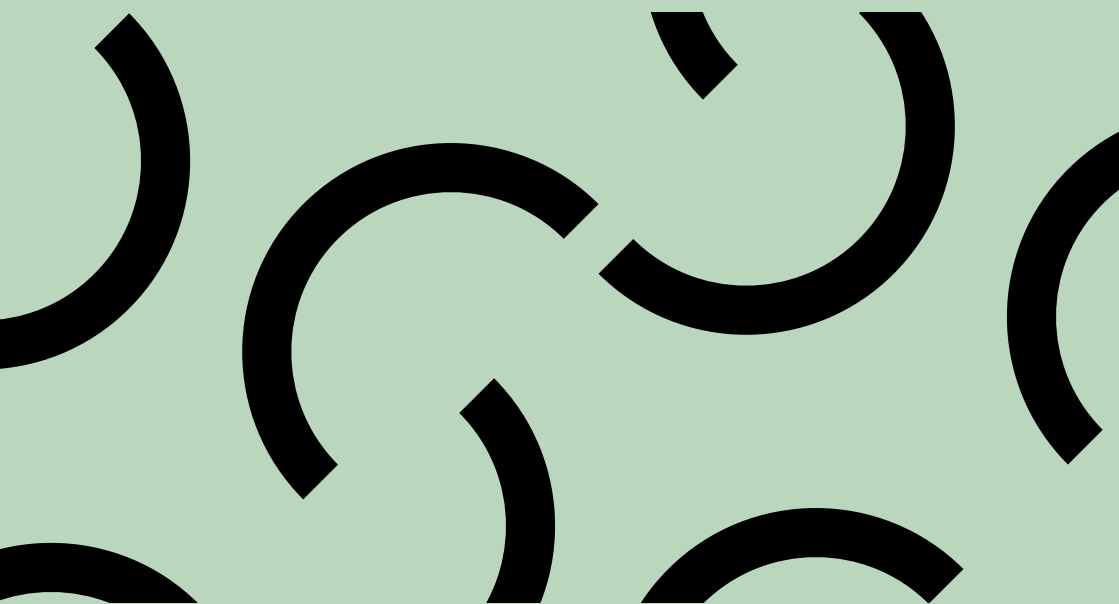


Putting an end to the build and bust cycle of content management systems



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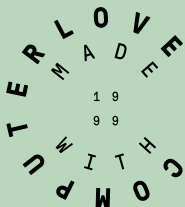
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On average, powered websites/platforms have a shelf life of just two to five years before they are ripped out and replaced by a new model. This isn't the fault of the CMS, but systemic of the approach and thinking ahead of any implementation.

Code Computerlove is a digital product agency. We create world-class experiences and help our clients stay ahead. We recognise that perfect isn't an end point. It's a moment in time – then it's gone. That's why we never stop looking for ways to make the brilliant things we create even better. The way we work isn't to predict what the entirety of an end product will look like, but to focus on what our clients need to achieve. We find ideas that have business impact and make them happen. Always starting where we can deliver the biggest results, then testing, learning and improving before moving on to the next goal. This is different to the way most agencies work. It's faster. More collaborative. More flexible. If you want to make something brilliant, you can't sit still. So we don't. We're Code, and we make brilliant digital products.



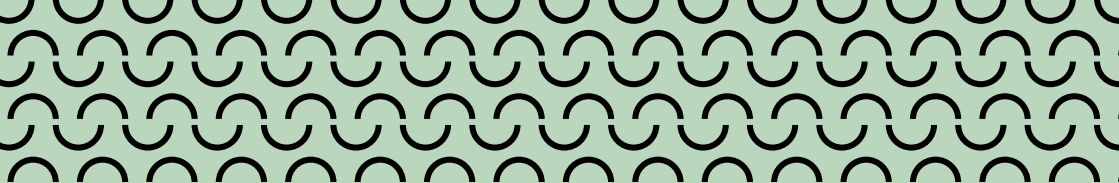
For most businesses their website sits at the centre of their digital offering to customers. It's more than just a place to find or download information, it's an online destination to shop around, buy, learn, consume, engage with your brand and be delighted and entertained in the process. Get it right and customers will keep coming back time and again and your organisation will grow. Get it wrong and in frustration customers will turn to your competitors who are delivering better, faster, more easily and with a greater degree of customer satisfaction. If you're a true dotcom, a digital native, then your website is the front door to your brand and everything else besides. Quite simply, technology is your business, and it must perform to ensure commercial success.

It stands to reason therefore that your CMS must be flexible and scalable enough to grow to cope with the demands you're going to put on it. You don't want to be constantly patching it up, fighting fire and wondering why it's getting more expensive to maintain the older it gets. It has to be built right first time and grow with your business – it needs to last.

Fundamentally the biggest error that organisations make when considering their website is to view it as a project. It seems our current way of viewing website development is as much to blame for stunting business growth as our choice of technology. Projects have start and finish lines, whereas your digital product should evolve over time and stay current. Once a project is 'finished' it lacks further investment – fast forward 18 months to two years and it's time to do it all over again. Viewing the CMS and your website as a product to be constantly invested in is a much better recipe for success.

Technology is an enabler. It should help you do what you need to, whilst delivering your products and services to customers in the way they wish to consume them. Whether you need to change direction quickly, enter new markets or be leaders in existing ones, it's time to break the cycle of 'build and bust' that we've almost come to accept as the norm in website development.

This white paper will outline where to begin, the role of CMS in your website, the types of CMS, where it's important to focus your attention and how to integrate your chosen CMS into your business so that you won't need to go around cycles of build and bust ever again.



Fundamentally the biggest error that organisations make when considering their website is to view it as a project. It seems our current way of viewing website development is as much to blame for stunting business growth as our choice of technology.

Where do you begin?

“If your organisation is only deploying software once a month, you’re only creating 12 opportunities each year to learn in the market. And because deployments are so difficult to perform and loaded with so many features it is impossible to link effort to. If numbers go up, everyone claims the victory. If numbers go down, no one claims defeat. Similarly discovering issues is a myriad of time and effort.”

Barry O'Reilly, co-author of Lean Enterprise:
How High Performance Organisation Innovate At Scale.

With over 1200 CMS providers on the market, it's little wonder organisations don't know where to begin when choosing the right digital partner. There is a baffling array of CMS vendors & digital partners out there, but the best relationship for both is the one that works with your business to solve both your short and long term problems.

It's important that you keep an open mind in what can solve your organisation's problems rather than predefine the solution. It sounds obvious, but don't think about the end product before you've identified the business problems it's going to help solve. This is often overlooked; as different stakeholders will come to the table with preconceived ideas around website feature set & design. Decisions based on opinion are rarely supported by evidence, insight or data – so where data proof does exist to highlight your business problem, focus on it and use it as a basis for change and subsequent measurement.

Undeniably, the best solution always centers on the customer. Your digital partner should work alongside you and use customer led design thinking to create insights, validating them with real people as your platform is built. Making tweaks and working collaboratively means that customer experience is at the heart of each version and is authenticated every step of the way, reducing risk and increasing value.

Faster revenue generation

The ingrained 'project' way of thinking about website development means we often spend money on months of design work behind the scenes with a 'big bang' unveiling of the new shiny thing at the end of the project. Approaching it differently allows you to work iteratively to make smaller changes, validating and measuring them as you go, so that revenue generation happens faster for your business – even within one month. Identifying the minimum viable product (MVP – the minimum set of features that can be changed immediately, driven by necessity, value and user feedback) delivers instant improvements and reduces risk from the technical delivery of your site.

By iterating fast, releasing feature-by-feature, gathering insights, data and feedback to drive prioritisation changes in your backlog – you deliver what people really want today and tomorrow. This simply isn't possible in a 'big bang' site unveiling as you set about building what you thought was right 6-12 months ago at the start of your project, and not what your customers want today. It's all too easy to fall into a 'just build it' mentality where hitting a project deadline is the only thing of importance instead of building what's right for your business and the customer.

To begin in the right place, you must decide what issues the business faces, collect data to support this and then choose your CMS accordingly.

ASDA

Working in an iterative way ASDA.com has experienced an additional multimillion-pound revenue per month. On a weekly basis we are still testing and refining the navigation of the site to increase click through rates to key business lines. This has returned a 24% increase in onward traffic, a 21% increase in revenues per month and a 37% bounce rate reduction.

Read the full case study here <http://www.codecomputerlove.com/work/asda>

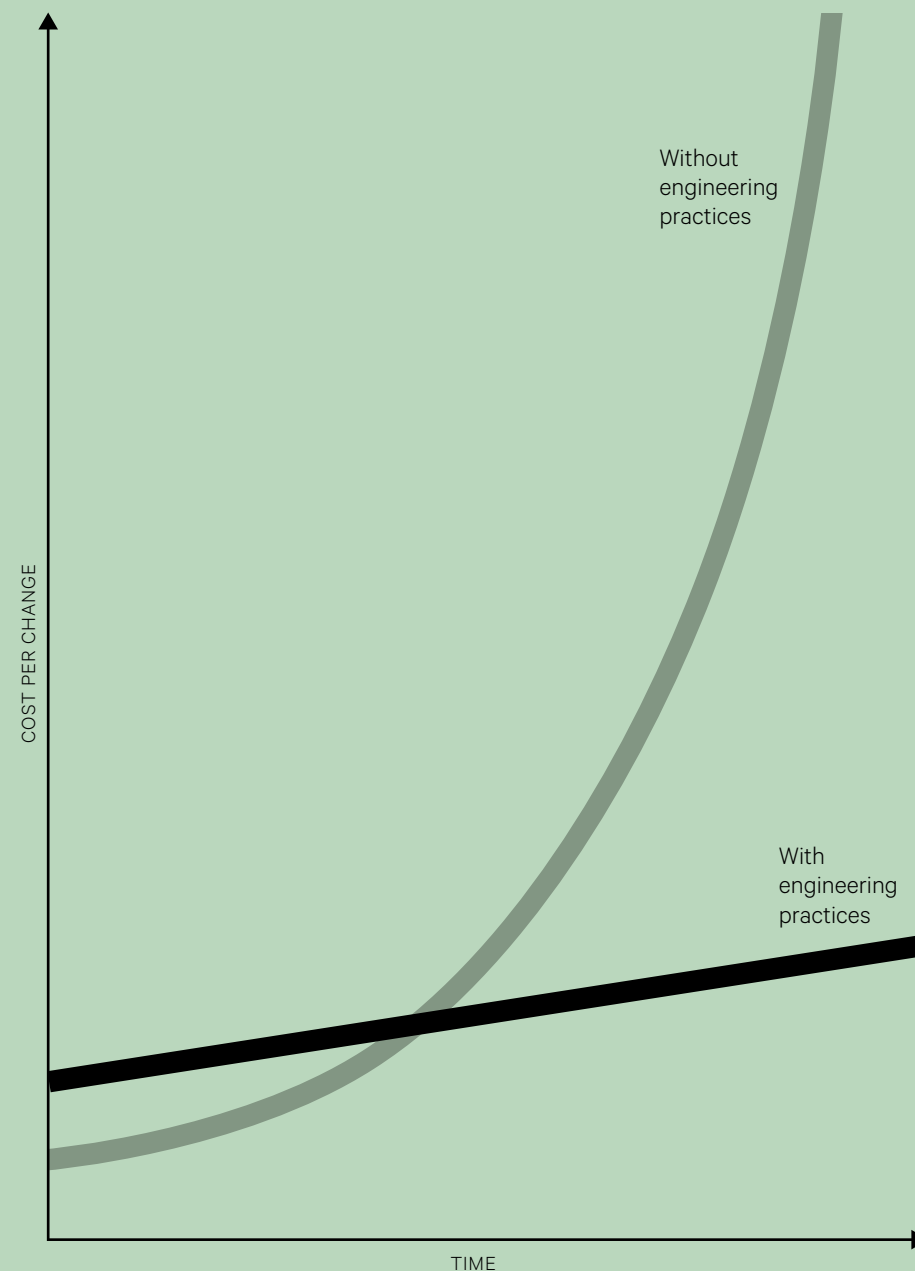
What type of CMS?

Whatever CMS foundation you choose to build your digital business upon, it's imperative to bear in mind the total cost of ownership of your website at the outset.

Figure 1 opposite demonstrates how over time, a lower cost per change 'project-based' website becomes more expensive as things need updating and begin to break (the grey line). The chosen CMS in this case prevents ease of reengineering to support business growth and customer change. These products are initially very appealing due to the lower price point at the outset, but within six to 18 months, the ability to adapt to changing market factors results in an increasing cost per change, high risk slow updates and high total cost of ownership as the site can no longer scale or adapt to the demands put on it. The website partner is fired and a tender goes out for a new one to begin again. Sound familiar?

By contrast, a site that has a higher cost per change at the outset, but is constructed iteratively with the customer in mind is flexible and can be adapted easily to changes in the business (the black line). Over time, this pays dividends as it grows with the business, can be scaled, is flexible to react to market changes and still has the customer experience at the heart of it through constant feedback. It's takes on the attributes of a product that is continuously updated and forms the digital corner stone of the business. Total cost of ownership over its long life is much lower as there is no need to start again or materially re-engineer the entire website in any way.

FIGURE 1
Total Cost of Ownership



The CMS market is relatively simple, so let's look at the three differing types of CMS before we evaluate how best to utilise and deploy them.

Type 1: Open source plug-in

The most well known vendors in this category include Wordpress, Joomla and Drupal. They have some key strengths – they're fast to market and have hundreds of pre-built feature plug-ins & modules that can integrate directly with other business platforms. However, many of these plug-ins and modules are version dependent causing issues on upgrades. Also, the fact that they are so simple to get up and running, means there are limited in ways to improve performance and flexibility as your business grows for the long term, leaving themselves ideal for quick tactical throw away use.

Type 2: Open source framework

Vendors including Umbraco and Contentful fall under this framework category. Products in this area are fully customisable reliable CMS frameworks created, maintained and evolved by a passionate community. To implement you will need to invest in development skills on top of the framework to deliver a website. The usability is very strong, with good language options and content approval workflows built in. They also have hundreds of pre-built feature plug-ins and modules that can integrate directly with other business platforms – however again many of these plug-ins and modules are version dependent – causing issues on upgrades. Some of these vendors offer a cloud-based approach and ultimately can evolve their offering as they're not constrained to only deliver marketing features, but also balance technical evolution.

Type 3: Enterprise framework

Sitecore, Adobe and Episerver fall into this category – they provide an all in one marketing answer that allows for a high level of marketing automation and personalisation. They have rich customer features, solid CMS workflow, multi-language support and clear marketing feature roadmaps. However, there are significant licensing costs which effect how you scale as you grow. There isn't the same architectural freedom as the open source framework as the business & products are driven by marketing requirements and less on the technical market trends.

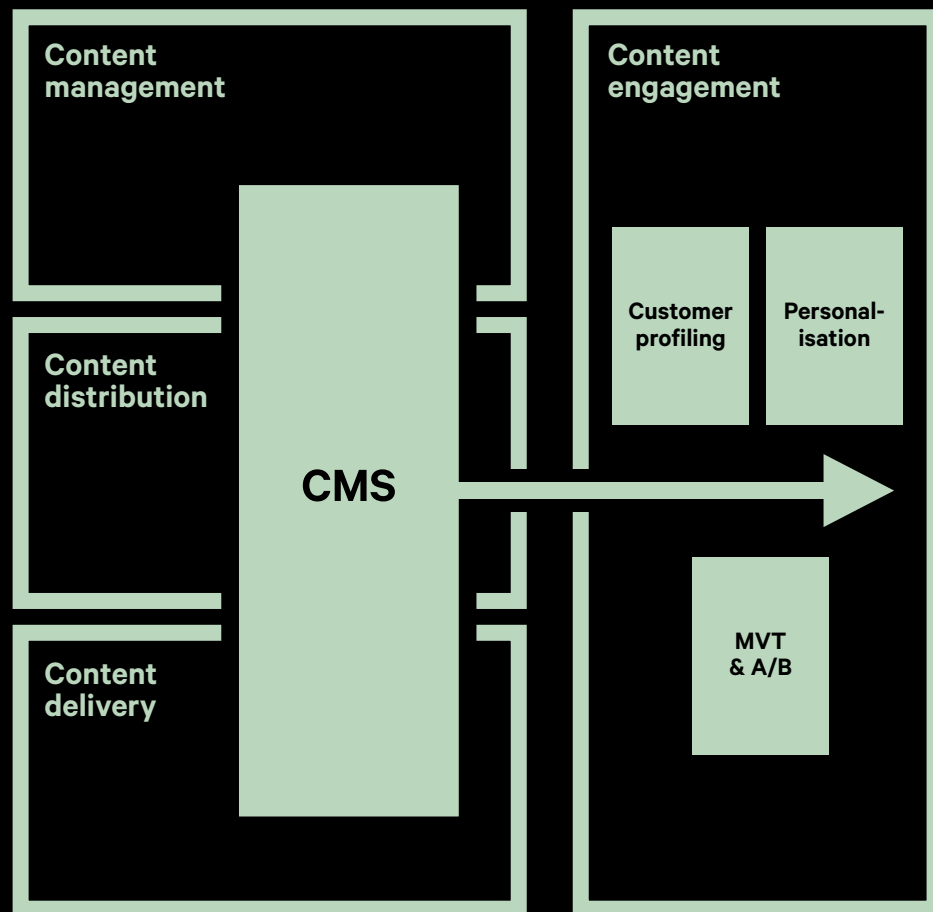
Focus on loosely coupled architecture

The type of CMS you choose doesn't actually matter. What really matters is how you architect it into your business so that it has the ability to grow and flex with your business without major reengineering or the need to start again. Much like you wouldn't consider constructing a building without the help of an architect to make sure that space is used to its best while taking into account it's surroundings and other buildings in the area. Any technical implementation including a CMS is no different, approach it right and it will have a long, useful life.

Figure 2 shows the basic building blocks of a CMS powered website. There are four main pillars: content management, content distribution (largely forgotten or ignored for reasons of cost and speed to market), content delivery and customer engagement. The more interdependent the pillars of a website are, the more inflexible the site becomes and the harder it is to change or scale without upsetting the entire digital offering all at once.

Most non-digitally native businesses are set up so that the CMS forms the basis of the whole site – tightly controlling all of the pillars. Rather than focusing on powering just the content management, the pillars are tightly coupled together so that they are difficult to separate, scale or grow independently of each other. If one breaks or requires upgrading, there is a knock on effect on the other pillars creating more work, more time, increased re-engineering and more cost, thus impacting business performance. It's much harder to make small changes, as the parts of the CMS are dependent upon each other. Tightly coupling them together provides a quick product win, but much longer-term pain.

FIGURE 2
Building a CMS powered website



Enterprise level CMS's stretch across all four pillars to include customer engagement and personalisation too, which is their USP – all things in one product. This is massively appealing, however the tightly coupled architecture creates the same interdependencies and lack of flexibility at the technical level – which again can result in regular rebuilds.

The reality is that the flexibility this model delivers allows your digital offering to constantly adapt as needs arise

The alternative, and what most digitally native dotcom businesses do, is create an architecture that is 'loosely coupled' where you choose best in breed products for each pillar, based on business problems and needs. **Figure 3** shows the architecture chosen by a dotcom.

Following a loosely coupled platform architecture allows you to work on different parts of the platform without upsetting the equilibrium of the whole. Dotcom businesses employ a loosely coupled architecture to allow different integrations to be added as the business grows and market requirements change. It seems a much more complicated structure as many more products options are available to you to get to a result, but the reality is that the flexibility this model delivers allows your digital offering to constantly adapt as needs arise with minimal cost and impact to the website or your business.

For example, should you need to upgrade or change your customer relationship management system, you can do that by simply updating an application programming interface (API) in the content distribution layer instead of a large scale change across the entire CMS. The API is what connects the different software applications to talk to each other but without the need to tightly couple them together – consider it a translation service. Likewise, if you decide to add an app to your product offering, the content can be centrally managed and delivered in the correct format to the app via the API. If you need to scale up the front-end because of large quantities of seasonal traffic – Christmas for example - only the content delivery layer must be scaled. The best products for each pillar are deployed, rather than a generalist product working at a lower level across all four pillars. Finally, by loosely coupling your platform architecture – where the pillars are not all controlled via one technical product, you are improving the overall security of your wider platform by creating isolation at each touch point.

FIGURE 3
Loosely Coupled Architecture



FIGURE 4

Distribution is at the heart of the
your business, not your CMS

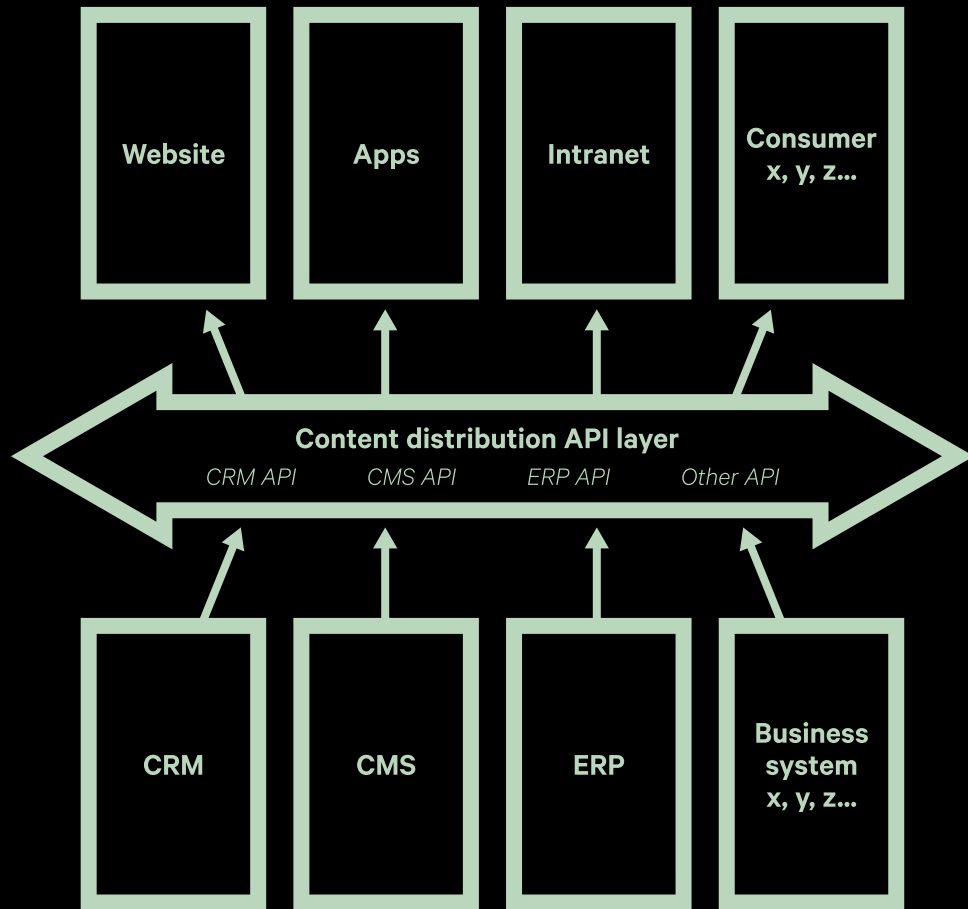


Figure 4 shows how a loosely coupled architecture utilises a content distribution API layer that consists of CMS, CRM, ERP API's so that content can be taken from any of these business systems to create a better user experience. Created once, used many times, - or 'content-as a service'.

Loosely coupled architectures are preferred by digitally native businesses because:

- **Isolated changes can be made faster at any level**
- **It provides a method to create content once and reuse it across many platforms – apps etc. (content-as-a-service within the content distribution pillar).**
- **It's faster, easier and cheaper to scale as your business and customers change.**
- **It's easier to deliver the MVP – the minimum set of features that can be changed immediately to deliver instant improvements - impacting revenue at the earliest opportunity**
- **It's easier to change business systems without causing a complete rewrite of all consumers**
- **You can deploy best of breed products to do the right job for your business**
- **The days of the build and bust cycle are over.**

Lose the hero metric, work from your data.

What do I mean by hero metric? A single huge measure of success or failure. When NASA launches rockets, it doesn't measure success on only being able to see if the rocket is still firing as it soars into the sky. Similarly failure would be when the flames go out or explodes – however the event has happened so it's too late to do anything about it. To deal with this, there is a huge set of micro level metrics on all aspects of the rocket back at mission control so that progress can be measured and performance adjusted accordingly at any time – increasing agility. If there is a “Houston, we have a problem” moment, the micro level metrics will already be showing exactly where to focus – giving the team time to make critical decisions before the flames go out.

Beware of your own hero metric: unveiling a shiny new website is not the end game. The data and the granularity of data that comes back to you from constant learning and iterating is what will ultimately deliver a digital offering that is a success for your customers and for your business. Your platform should enable you to change direction easily, getting insights as you go. If your architecture is limiting your ability to iterate, then it's time to change your approach. Adapting an agile workflow where tweaks are made based upon your data and can be measured against KPI's will ultimately mean that your business problems get solved.

If there is a “Houston, we have a problem” moment, the micro level metrics will already be showing exactly where to focus – giving the team time to make critical decisions before the flames go out.

Summary

Be sure as you move forward that your website is not tactically constrained by engaging the cheapest supplier on a fixed cost, fixed scope, fixed project length which will lead to a constrained CMS implementation with high amounts of longer term technical debt and risk. Apply modern thinking early on and modern engineering to eradicate the build and bust cycle forever.

It's not which CMS you choose that matters the most, it's how you decide to architect your platform. A loosely coupled architecture will provide your organisation with the ability to change, scale, grow and future-proof your digital offering reducing long-term costs.

Keep these seven steps to success in mind

- 1 Have a clear vision** – and don't forget to map your competitors too.
- 2 Know your audience and what they want** – use online surveys, customer interviews and user testing.
- 3 Prove your ideas & hypothesis before jumping into the build phase** – prototypes, MVP's etc.
- 4 Define your micro metrics & KPIs for success** – beware of only having a hero metric.
- 5 Take one step at a time** – deliver the most valuable thing to your business first.
- 6 Measure as you go** – use insights to embrace an iterative approach.
- 7 Think like a dotcom** – stop the build and bust cycle.



Code Computerlove is a digital product agency. We create world-class experiences and help our clients stay ahead.

If you'd like to talk to Code Computerlove to discuss your digital requirements, please get in touch with Steve Peters, Digital Business Director at steve.peters@codecomputerlove.com or on 0161 276 2080.

