



The Process Of Content Management

And how to apply it in your organization

(A Chapter from Enterprise 2.0)

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Introduction

On September 8th 2008, United Airlines Stock (UAL) lost tens of millions of dollars in value over a span of 10 minutes. The stock, which opened that day at \$12.45, crashed to \$3 before trading was finally halted. United Airlines, among many of the major carriers was certainly not alone struggling with the weak economy and higher fuel prices. And, like the others, had a history of financial turbulence.

But that morning the turbulence reached a crescendo. An employee of a Florida-based investor information service, browsing Google news, had seen a headline published from the *Florida Sun-Sentinel's* Web site. Clicking through, he went to the *Sun-Sentinel's* site, and saw that the story had actually been syndicated from the *Chicago Tribune's* Web site (where UAL is based). The news stated that United Airlines was declaring bankruptcy.

The investor, realizing the enormous importance of such a story to his subscribers, quickly wrote up a headline relaying the bankruptcy and summarized the subsequent point of the story that the airline was attempting to cut costs by 20%. He then published it using his content management system. It was not only transmitted immediately to the subscribers of the investor's information system, but also through the Bloomberg news service; meaning his content would hit the national wires as well.

As soon as the news hit the national wires and investors saw it, the results were crushing. More than 20 million shares were traded in the span of less than 10 minutes, and the NASDAQ finally halted trading on UAL at 11:06 a.m. But the question is why? If the airline was indeed going bankrupt, why halt trading on a valuable piece of news? Well, the problem was – it wasn't true. The story that had appeared in the *Florida Sun-Sentinel* was 6 years old – and was accurately reporting when United Airlines had declared chapter 11 in 2002.

Indeed, *The Chicago Tribune* was actually the originator of the story and it had appeared on December 10th 2002. It had been subsequently picked up by the *Florida Sun-Sentinel* – where it also ran on the 10th and, apparently, then been archived by the newspaper until this unfortunate day six years later¹ when it had unwittingly appeared again as a top story.

Fingers were pointed, and the “blame game” was played with fury. *The Sun Sentinel* blamed Google for pulling the headline of the archived story erroneously. Google blamed *The Sun-Sentinel* saying that its content robot correctly looked at the date on the page, and saw that it was current – and therefore saw the story as current. Some blamed the information service employee for not recognizing that the story was six years old by its context (which was clear) and basically screaming fire in a crowded theater. Ultimately the source of the issue came down to a semantics argument over look and feel - specifically where, if and how a date should be placed on an article to make sure its date was understood in context. That's right, it came down to a fight over the design of the web site.

So, what is the moral of this story? One might think given the name of this chapter – the focus would be on *The Sun-Sentinel*, how they managed their content and how something like releasing a six-year old story could ever happen. And certainly there are questions about how archived content should be released back into the wild. Further, there are lessons that lie squarely at the feet of the investor information service – and how snippets of content that live in multiple places, and are displayed through multiple interfaces can quickly lose meaning. When this kind of content is acted upon rashly, it becomes like that childhood game of “telephone”. But, at its heart, the UAL story is simply a growing pain in an evolving World Wide Web. Content is growing explosively. It’s easy to hit the publish button in today’s world and disseminate content widely. And our Web 2.0 overwhelmed, socially networked thirst for 24/7/365 access to information just encourages us to act faster than we should.

So how do we manage our content in and beyond a Web 2.0 world where our content is aggregated at various atomic bits through different web sites. How do we manage this content when speed is often much more important than accuracy? How do we manage our content when the context (e.g. the look and feel) is becoming less important than the “mobility” of that content? Is it simply something we can’t trust machines to do? As Chris McNeilly, vice president of technology at SmartBrief.com – one of the services that *didn’t* actually pick up the UAL story that fateful September day was quoted as saying “Technology gets you so far, but then our human editors make the final decisions for publication.”ⁱⁱ

In short – how do we manage our content in and beyond the Web 2.0 World?

To address that, we should look at three distinct phases of how content is evolving on the Web – and how it is affecting the way we access it over the Internet. These three phases themselves are not equal, nor are they all-inclusive; but rather think of them as two of the smaller, perhaps more important, cobblestones leading to a much larger open garden.

The First Cobblestone: The Atomic Age of Content

When the UAL Story first appeared on that fateful day, it was a headline and abstract on Google News, from a story that appeared in full on *The Sun-Sentinel* Web site, syndicated from a larger story on the *Chicago Tribune* Web site. And this is an explosive trend in web content and web content management – and that trend is that content is being broken up into smaller and smaller bits – so that it can be aggregated and consumed in an ever-more filtered manner.

Now, certainly very few of us manage newspapers or other such high velocity content vehicles. And few of us have to worry about an erroneous piece of news like the UAL fable. But consider how that same process might be taking place with your brand, or your product information. Consider the headline of the press release announcing your new product; the one you’re about to spend a thousand dollars sending over the National

Wire Services. Did you assume that the context would be derived from the sub headline or the press release detail? If you read it alone does it even make sense? See, it's not just a risk of erroneous information being syndicated, it's also that if that content is broken up, it can remove contextual meaning and result in a waste of your marketing dollars as well.

In Web 1.0, our Web sites used to be the sole source of our marketing and product and customer service information. And, in fact, many still are. But the world beyond Web 2.0 allows us to syndicate this content out in innumerable ways. Today we can publish our product marketing and press releases in RSS Feeds. Done with some skill, our press releases will be automatically picked up by global news organizations like CNN, and CBS. Google News will pick up our RSS Feeds. Blogging strategies help us communicate more effectively with our constituencies, and the index of that blog might get scraped into Google Blogs, or picked up on other social media like Digg.com or Slashdot.org. Our last 10 blog entries will appear as "related content" on industry web sites. Or, other people may consciously break it down into even smaller bits by using Twitter or other micro-blogging strategies.

This is a key strategy for us today as business managers. It is now so much easier for us to communicate with large groups of our constituents – and easier for our constituents to "subscribe" to what we are saying. While the UAL story is a cautionary tale, and there is (as we'll see) a dark side to this trend, the real story here is the unique opportunity that this breakdown of content provides. This is really the heart of Web 2.0 – it's the conversation that begins with the subscription to a small piece of content and leads to a lead in your sales organization, a more satisfied, informed customer or a better partner.

And, consider that as many business managers experiment with social media, and the ultimate breakdown of content into headlines, abstracts and blurbs, we must be aware of new trends which break down the content even further. Think of Facebook – where content is literally broken into descriptive field levels so that it can be aggregated – and re-aggregated – and of course targeted for advertising.

The Web is inviting us to segment our content into smaller and smaller chunks – so that we can provide the flexibility of other interfaces to display filtered versions of it. But how does the web know which versions - which chunks - to display. That brings us to our second cobblestone.

The Second Cobblestone: Content About Content

When reporters interview legendary artists, there is a question that is used quite frequently – usually toward the end of an interview, where the interviewer is trying to sum it all up and wants his subject to become philosophical. They ask "what would you like your epitaph to be?" Or, sometimes they'll ask "how would you like to be remembered?" This is the quintessential example of what is happening with content.

It's being tagged with an epitaph. How would you like your blog post to be remembered? Please write its' epitaph.

It seems like within every piece of content we produce these days – whether it is a photo uploaded to our Facebook profile, a blog post we put on our corporate web site or the general search engine description we put on our marketing white paper – we are asked to sum up in a few words what this content is about. This is the meta data. This is not necessarily how search engines find our content – but it is one of the primary ways of how content is aggregated and filtered. The content about the content can, itself, be broken into smaller and smaller bits from description, to keywords to tag; literally, breaking down the content into one word or label. I dare say that all 150 million of you that have Facebook accounts have all received the message that you've been “tagged” in a photo. Guess what, unless you untag it, that photo now lives with you on the internet. So, if someone has tagged the photo as “Sam” and “Drunk” – someone can put up a web page of all the drunk Sam's on Facebook. Pretty powerful and pretty scary isn't it? I'll pause here while you all go untag your photos in Facebook.

CrownPeak, the company for which I currently work, helps organizations to manage their web content. The software that the company sells, manages thousands of web sites for hundreds of customers. From its many years in business, we've noticed many things about web content. So, consider that on average a business web site focused on selling a product or service (e.g. not e-commerce or a magazine site) might have approximately 300 pagesⁱⁱⁱ. The meta data about that content would fill 10,000 pages. Every piece of content stored in a content management tool has meta data around it. How much meta data is determined largely by the tool you use. Some of it is explicit of course, including the content that helps to categorize it, but there is also implicit meta data. For example, there may have been 42 versions of that content before it went live, so each date and timestamp (as well as the changes themselves) reside as meta data. There may have been multiple authors in its life, so each author and their changes are stored as meta data. You can quickly see how that can be taken to a dizzying level of detail.

This is the point here – and is key in our strategy to take advantage of the opportunity. By breaking our content up into smaller and smaller bits – and by describing the content accurately and with a level of depth appropriate for our organization, we are preparing to take the next step – into the garden beyond Web 2.0.

The Garden – Web 3.0 or The Semantic Web

Think about the experience you have with content on the web today. You go to Google, type in a search phrase – and assuming you've constructed your search phrase accurately your answer may be right at your fingertips. Chances are, however, that you'll either perform that search with other key phrases in order to find the answer you're looking for, or you will click through several sites looking for the most relevant answer. Then, assuming you find a link that looks relevant, you click on it. We all (and Google is included in this by the way) think of the World Wide Web as a series of interconnected

pages that really have no relationship to one another *unless* they are linked. In fact, at a high level, this is how Google determines relevance and rank of the links you see when you perform a search. The Google search robot examines each page, and also how many other pages link to the page at which you are looking. Because you found it on the first page of Google, you can safely assume that it was a high number. You can see how this might be manipulated by unscrupulous consultants with a lot of time on their hands trying to artificially raise their Google search ranking. And, indeed, Google will demote sites that they deem inappropriately linked from sites that are primarily “link farms”. But still this manipulation can produce some humorous and prankish results. These are called Google Bombs. One of the most famous of these is the phrase “miserable failure”. Up until just very recently, when you typed that into Google the first page result was a link to George H.W. Bush’s White House page. Now, Google has since manipulated their own search and this has been taken down for Obama^{iv}. In essence a large number of people got together and linked the words “miserable failure” to the home page of the white house – and voila, Google determines that the most relevant page for “miserable failure” is The White House home page and returns that as the top result.

However, you can immediately see the flaw in that thinking. Despite what you think of our 43rd President, this is not a true relationship of content to content. Google had to “fix” this linking in order for the new white house to not be associated with it. So, think of all the other “mistakes” that are out there – intentional or otherwise. Think of what you’re currently linking in your own web site, and how Google sees that.

Let’s go back to our page view though. When you access the web, we think of things in pages. You access a web “page”. And that document is presented to you on one screen – and you read that document much like you would any – typically scrolling through the document, or clicking hyperlinks that take you to something the author has decided should be linked for additional or relevant expansion of that document’s idea.

But as shown in the Google Bomb example, this is really an inefficient and potentially inaccurate process. The Web is an ever-evolving organism – and with billions and billions of “pages” added every year, filtering that information and making it easier to access relevant information is critical. The idea of Web 3.0 from a content perspective, is as content becomes more atomic, and as meta data and schemes for assigning relationships to content become more sophisticated, content will not be presented as a singular document – but as a series of related ideas that can be assembled in any number of ways.

To be sure this is not a new idea; the semantic web was something that the originators of the Internet envisioned. In fact, in 1999, Sir Tim Berner’s Lee, one of the original inventors of the protocols for the World Wide Web said: *I have a dream for the Web [in which computers] become capable of analyzing all the data on the Web – the content, links, and transactions between people and computers. A ‘Semantic Web’, which should make this possible, has yet to emerge, but when it does, the day-to-day mechanisms of trade, bureaucracy and our daily lives will be handled by machines talking to machines. The intelligent agents people have touted for ages will finally materialize”*.^v

Now, the entire realization of that vision, may be a bit science fiction, but pieces of this idea of a semantic web are closer to reality. The idea that is at least conceptually near realization is that content can be assembled based on relationships with other content and that these ideas are interconnected automatically without having to think about them at time of authorship or reading. Think back to our embarrassing web page of all the drunk Sam's – and that's a very manual, simplistic way to begin to think about it. All of the content aggregated by relationship by one field or meta data of information.

In fact, an example of just this kind of application was launched in May of 2009. Wolfram Alpha (www.wolframalpha.com) is being called an "answer engine" ^{vi}. It was developed by Stephen Wolfram, a British physicist and the original developer of the popular (and very sophisticated) Mathematica application. Other than being the creator of Mathematica, Wolfram is mostly known for his work in theoretical particle physics. The Wolfram Alpha "answer engine" is more than just a search engine because it returns more than just page based results against a search query. Rather, users submit questions, or key phrases into the engine and the "answer engine" then computes, aggregates, infers (yes infers) and produces interesting and meaningful visual representations of those results.

So, for example, let's say you want to know what the circulation numbers are for National Geographic magazine. If you were to type in "*circulation of National Geographic Magazine*" into Google, you'll get all the pages where that phrase appears, or where those key words appear. The first links are for Wikipedia articles, and then links for the National Geographic Society and then the magazine's web site and so on. Perhaps on one of those pages lays your answer - but you will need to click through and read all those pages to find out.

Typing that query into Wolfram Alpha on the other hand generates a single page of results that pulls information in from disparate sources. It tells you the current circulation number, confirms the full name of the magazine, lets you know that it's a monthly magazine, and provides a link to the web site. Additionally, it provides the source information for that data as *ProQuest LLC*, *Publist* and *WikiPedia*. And, it provides links to those source web sites as well.

To be sure, this is just the beginning stages. Currently only a few types of queries work in Wolfram Alpha, and the "answer engine" can be confounding as it doesn't quite "understand" the myriad ways you might type in a particular search query. But, this is only a matter of time and learning. Certainly, the idea of deeper machine understanding of the relationship of content is here to stay.

As a deeper example, let's pretend that you were searching me; Rob Rose. It's a very common name – and you'll get more than 25 million search results if you search Google for it today. And, thankfully (I think), I'm now on the front page. But if you didn't identify me from any of those links that are provided, and you also happen to know that I'm associated with CrownPeak, you might retry your search and use that as an additional

descriptor in your search query. Or, if you knew me from high school, you might use it as your descriptor. Or, perhaps you might use my wife Elizabeth as a descriptor. Whatever your relationship to me you'd continue to add descriptors until you actually got a list (of at least a few front page results) that looked like it had something to do with me.

Unfortunately, that still may not answer your question. Maybe you're trying to find a particular blog post – or something I'd written. That's where the semantic web comes in. Because now pretend you do that same search for Rob Rose. Let's say it's on a site called Shmooglehoo.com. You Shmooglehoo (see it's already a verb) – and what comes back is a nicely formatted page asking which Rob Rose you're looking for; the jeweler who resides in New York City – the realtor who lives in Salt Lake City, or the Internet Marketing guy who lives in Los Angeles. Then, if you choose the last one, you get another page – assembled automatically which pulls information from my LinkedIn Profile, my Facebook profile, the list of articles that I've written on iMedia Connection – a summary of my last six months of blog posts etc.. etc... This isn't content that resides in Shmooglehoo – it's content that's pulled semantically from various web properties because it understands that the relationships between all of these things has one thing in common – and that's "Rob Rose", and the content and the meta data that surrounds Rob Rose is what draws the complete picture around the profile – and gives the machine even deeper understanding about it and so on- until it develops the accurate profile that you're now staring at.

As you might expect, the true realization of this is an ever-evolving set of technologies – and is probably much further off than we think. Isn't it always? The key here, however, is that this is something that is going to fundamentally change the way the Web is accessed and exponentially increase it's usefulness for those organizations that can get their arms around how to make it work for them.

So, what does Shmooglehoo mean to me?

The implications of this, of course, are just like any web or technology innovation – and that is that it will differ depending on what kind of business you are in. But whether you are managing the content for a non-profit, a government agency, an online retailer, a media publisher it will have broad implications on your web strategy. Business leaders need to understand and begin to think about a plan to consider these implications. Ultimately, content management is a process – and the transformation of your content management process is what's key to being able to take advantage of this innovation if and when it arrives.

And just like Web 2.0 didn't end up being all that it was billed as - its impact was just as profound. Consider that Facebook alone now has the equivalent of half the population of the United States as members. So, this innovation may ultimately not be called web 3.0 or the semantic web, or have everything Berners-Lee described. But the implications will be profound nevertheless. Your customers will not care what this is called – they will just know that it exists, and how you deal with it will be the indicator of whether it helps you or doesn't.

Now to be clear, this isn't something that you have to go out and tackle tomorrow. Heck you haven't even gotten the web site re-designed for Web 2.0 yet, and now you have to start thinking about how to manage your content in a Web 3.0 world.

But as you do begin to strategize about your roadmap toward the semantic web, and your content management processes, consider a few guideposts that will help you today:

1. **The importance of content mobility.**

When the subject of content “mobility” arises, most of the time the discussion turns to publishing content for mobile technologies such as cell phones and PDA's. The expansion of broadband connectivity over cellular networks, along with the proliferation of mobile phones, and especially the phenomenal success of Apple's iPhone is quickly driving more and more content to mobile technologies. However, from a content perspective, smart phone technology is outpacing the thirst for wanting to publish content to it. Publishing content in specialized formats such as Wireless Markup Language (WML) or designing special web sites that can be displayed on smaller screens is becoming somewhat anachronistic. So, the third guidepost below notwithstanding, what this means is that the web browsers on this generation of iPhones and Blackberries can now view web sites as any other computer-based browser does.

So, while all of that is really interesting - and definitely the fodder for yet another book of its own, by “content mobility”, I actually mean something quite different.

If you have ever gone through the painful process of migrating content from one content management tool to another, you know that it is one of the most painful slogs this side of an audit. In 2009 having “content mobility” is a critical factor in making your content flexible enough to move at any time – and having the right system in place to be able to scale your content management process to address whatever trend may come along.

This flexibility and scalability really comes down to two elements. Flexibility is needed for the “*content we have*”; meaning as an organization we have content and we need to publish it to many different devices. This capability means publishing our content to our web site, our intranet and, yes, mobile phones and blackberries. But it also means being able to publish content into different types of interfaces that may present themselves to us. These include kiosks, and televisions, and cars, and Microsoft Xbox and Facebook. As content breaks into smaller bits, and more and more devices become connected, opportunities will present themselves to display our content in more and more interfaces. Our ability to publish and format our content to meet these opportunities is critical.

Scalability is needed for “*content we don't yet have*”. This means we need to support needs in an ever-expanding content management world. As user-

generated content becomes more or less important, as meta-data becomes more or less important or as external content that we don't control becomes more or less important – we need to have systems in place to manage it. Put simply the idea is that, we don't even know all the content we're going to need to manage; much less where we will need to manage it. Therefore, we need a strategy that will evolve with us, rather than require us to re-create the wheel every time something new comes along.

To address flexibility, we need an effective way to manage, publish and re-use our content. A capable online content management tool – that is devoted to that purpose is essential here. Now, whether that tool is Bill or Jane, or a commercial software product, it not only needs to be easy so that your content experts can use it; it also needs to be flexible and fast so that it facilitates all those changes that we just outlined. Let's say tomorrow Web 2.0 finally does “jump the shark”, and Web sites go out of style. The hot new trend for your industry is the capability to publish your marketing content to some hot new search engine. Schmooglehoo is calling. You need a method to manage your content that can facilitate that change – not be a hindrance to it. You shouldn't have to reinvent your content management process or tool every time there's a new online format.

2. Not all of your content should be managed equally.

Managing content beyond Web 2.0 also means recognizing that there are varying degrees of value to your content – and that the appropriate processes should be put into place accordingly.

Let's take a technology company for example. Generally speaking, it has the following basic categories of content (see I'm already applying meta data).

- a. Marketing & Sales Content; that which is meant for as wide an audience as possible.
- b. Customer/Partner Related Content; that which is meant or relevant only to existing customers or perhaps partners
- c. Internal Content; that which is meant or relevant only to employees or contractors

Now one can certainly make different buckets – or even reduce it to two (public vs. private content). And, you may have already looked at this list and sub-divided it into deeper and deeper hierarchies. But just for the sake of simplicity, let's look at these three as the general categories. The question is given that these buckets will have such different needs – why would we manage them with same set of rigor?

Here's an example. I've left the name of the bank anonymous, but the example is real. First Wonder Bank is a financial services company with its headquarters in St. Louis, Missouri. They've got over \$7.8 billion in assets. They are the largest bank headquartered in Missouri, with more than 100 banks throughout Missouri, Kansas and Kentucky. For many years, First Wonder's Web site was its online banking application. Basically there was no distinction between marketing content and the online banking software application data. Now, the online banking application was controlled by the internal technical team at First Wonder, and it (quite rightly) had an extraordinarily rigorous workflow, security and release cycle for adding new content to the site. If marketing wanted to change content for any reason or add new pages – it was a two week process for any change.

Unfortunately for the marketing team, this made reacting to their online marketing programs and optimizing the site for search engines quite difficult. They wanted to manage their sales and marketing content separately from the online banking application.

First Wonder then changed the process for how they managed online marketing content. They separated it out from the IT Group and empowered the marketing team to deploy their own tools and processes. They acquired a CMS tool that complied with all the legal and auditing that they required from their marketing content – but the key was that the technology group had nothing to do with the selection of the tool or its ongoing management. The marketing group completely outsourced this function to another company.

The result was that they doubled the speed at which they could iterate content on their web site. The marketing content on the site was now optimized for search engines, thereby giving them more visibility to new online consumers and business improved.

So, changing their process (and subsequently their content management tool) for managing the online marketing content in a different way, and using a different tool provided huge benefit for the organization.

3. The end of look and feel

In the first guidepost, we looked at what making our content more mobile so that it has the flexibility to be displayed through multiple interfaces. Ultimately, it will be much more important for you to manage your content and be able to “publish” it to whatever format in which it will be consumed. So, as you start thinking about content management processes – start to think about your content less as a hierarchical structured set of file and folders that live in major sections and sub-sections on your web site. Rather, start thinking of your content repository as a wellspring of content that is well described with meta data and can

be assembled into any type of construct.

In other words, very soon, you're going to get out of the look-and-feel business – and start depending on display of your content through interfaces that are designed and provided by other mechanisms that you do not control. Think back to our UAL story. The content was produced by the Chicago Tribune, and then sucked automatically into an interface that was controlled by the Florida Sun Sentinel, which was then syndicated out to Google News. Additionally, you can see it happening with portals such as Yahoo, and your ability to assemble your MyYahoo page with any particular set of content you like. Then, if you roll over a particular headline, you may get at least the lead of the story, if not the whole thing – without ever having to leave that page.

To put that into real perspective, think of it this way - your content (at least the pieces that are appropriate for syndication), without extra effort, should ultimately be enabled to be consumed by any device or interface whether that interface is a web site, a mobile phone, a Facebook application, a search engine, a car etc.

Now to be sure there are legal considerations as well for this strategy. Consider a lawsuit that was just settled in January of 2009 between GateHouse, a community newspaper chain based in Fairport, New York, and The Times Company - which owns (among many other newspapers) the Boston Globe and Boston.com^{vii}. GateHouse's lawsuit is the direct corollary to the UAL story. GateHouse charged that The Times was scraping the GateHouse local community papers for headlines and snippets of content - and placing those snippets on their own newspaper sites as "local" content. They linked through to GateHouse web properties when they used the content and credited GateHouse as the originator of the content. But GateHouse charged that despite this, that pulling atomic bits of content was copyright infringement. The lawsuit brings into question just how much content can be pulled as a "link" to an external site. So, for example, if your competitor pulls your RSS feed of press releases and displays that on a content web site that extols itself as an independent online portal with expertise in your industry is that copyright infringement?

Because the lawsuit was settled, there was no precedent set as of this writing, but certainly this will come up again as content becomes much more mobile around the Internet.

As you develop your own internal strategies for how you'll address a roadmap for managing content beyond the web 2.0 world, real life comes crashing in. You're faced with selecting a tool that can handle the job today and help you prepare for tomorrow.

So, as you begin to look at this process, certainly consider where your own process for developing a content management strategy is headed. You should also understand that this process is much more important than any tool you'll select. To that end, and just like

all content should not be managed equally, not all tools need to go under the same level of scrutiny. Too many times when trying to decide on a simple web content management solution for the marketing group, the committee that is assembled to approach that project looks more like the economics team going to the G8 conference.

Content Management Systems (or more accurately tools) have gotten a bad reputation since they came onto the scene in the late 90's and early 00's. There are two main reasons for this. The first is that the products themselves were so large and unwieldy that they took months and months to get implemented – and even then were so inflexible that that they were impossible to really use in any fluid organization. The second is that organizations still see the idea of content management as a project that has a start, a middle and an end. So, many content management systems get deployed and are launched in the organization with a flurry. Then over time, because (as we've learned) the process for content management changes so frequently, the tool becomes stale and it eventually goes unused and fails.

In the case of the web site, someone typically decides that the site design needs a refresh. So, interviews are conducted and requirements are listed. An agency or designers are hired and the project kicks off. It's usually at this point, that someone points out that the current technology solution used to manage the content on the web site will need to be completely rewritten/revamped/replaced in order to accommodate the new design. The committee then sets itself to adding to and/or replacing the content management tool along with the new web site redesign.

That's when the trouble begins. Creating a new look and feel for the web site, along with functionality for that web site is a project. As has been established, content management is a process. In short, the web site re-design is a date and your new CMS tool (the process and the tool) is getting married. It's an agreement to be a part of an ongoing process – and one that should hopefully, over time, make your life easier, and more productive. But this relationship has the inherent risk of consuming you and your team in an endless stream of misery. Is it any wonder that about half of all marriages end in divorce.^{viii} and that almost the exact same percentage of CMS implementations end in failure.^{ix}

Now, I've been happily married for 17 years, and something I fundamentally believe is that neither marriage nor the process of selecting, implementing and managing a content management tool has to be difficult. But just like the give and take and process for every successful marriage, avoiding “divorce” from your content management tool has a similar process.

Selecting A Technology Tool For The Job

So, selecting and implementing a content management tool is a project within the larger process. It, indeed, has a beginning, middle and an end. Selecting your CMS tool starts with a set of fun, fresh ideas for the types of new services, new capabilities or other desired outcomes from your new solution. The challenge will be to keep these new ideas

in line with your more comprehensive content management system – which is your strategy, process, people and tools. Certainly considerations of how you'll begin your process to break down your content, and manage it beyond web 2.0 will come up, and this mandate should be communicated and understood by your project sponsors. Then, your selection project will typically fall into the following four-step process:

1. Decide & Buy
2. Implement & Integrate
3. Manage & Maintain
4. Upgrade & Enhance

Each step has its' own challenges, deliverables and requirements.

1. Decide & Buy

Once you've decided on your process, and your mandate is understood, consider developing an "official" document which will explain the CMS implementation project and its desired outcome in detail. This Project Definition will be your requirements document as you gather all of the desired outcomes and new capabilities, and start to map them against a set of features, functions and services that you'll require from your chosen solution.

Many larger organizations choose to outsource the Project Definition phase to consultants with either vertical expertise and/or previous CMS Tool implementation experience.

In general, the goal of this Project Definition is to outline:

- a. The Scope of the project: What this project will entail (which divisions, which Web sites, intranets etc.).
- b. The business goals of the project: What the business will achieve from a business point of view and how it will measure the success of the selection and management of the tool.
- c. Key assumptions being made: What key assumptions need to be made and dependencies outlined in order to satisfy the deliverables.
- d. Key people involved: The key people and their role on the project.
- e. Functional business requirements of the project: These are the key benefits not specific features (e.g. easier to publish content more atomically to different formats, or publish search engine friendly content – *NOT* "XHTML compliant output).
- f. Functional technical requirements of the project: Keep these high level for now – but capture any critical items (e.g. must be Microsoft based, or must be able to scale as site and content management needs grow).
- g. Cost and Duration of the Project: Your budget and timeline.

Once you have developed the Project Definition, there will typically be a natural prioritization in terms of the features, functions and services that your organization will require. Separate these, both in the document and in your selection process, into “product features” and “services/vendor” requirements. For example, you may have a strong need for implementation services, because your technology team has limited bandwidth or, in the case of some smaller organization, is non-existent. Or, you may have strong product feature requirements such as workflow and auditing needs because you are in a regulated industry.

Developing the short list

Once you have defined this Project Definition, it is time to develop a short-list of potential solution providers, and develop a Request For Proposal (RFP). There are a number of analysts and resource Web sites available to you online in order to develop a short list of vendor candidates for your Content Management Tool. We’ve included these in the Suggested Reading at the end of the chapter.

Request for proposal overview

Based on a short list of 4 to 5 vendors, you can develop and send your RFP. In general, try not to get too focused on granular sets of capabilities in a feature/function matrix. Unless you have very specific feature needs, you are unlikely to get actionable information from these feature-by-feature comparisons. Most likely at this point all of the vendors will check the “yes” box. Instead, develop “groupings” of features from the general Business Requirements you defined in your Project Definition, and have the vendor comment (in a paragraph or two) on their ability to meet these specific set of prioritized features or benefits. Also, have the vendor demo these sets of features to you during a product demonstration.

Then, once you have your short list of solutions – consider developing a 1 Month Review Cycle for the top solutions. Below is a sample schedule for a vendor review cycle:

Week 1: RFP goes to 4 or 5 vendors on a short list. Within that RFP, should be anything in particular that you’d like to see demonstrated during a meeting, which will be scheduled that week.

Week 2 or 3: Online or in person demonstrations with all vendors on the short list. If possible all stakeholders should see all demos. At this point you may start eliminating vendors based on capabilities shown in the demo.

Week 3: Proposals due from all remaining vendors. Keeping the proposals mercifully short is a key instruction. Remember, a twenty page proposal from four vendors is 80 pages of reading for you and all your team members.

Week 4: Decision and contract negotiations with chosen vendor. If that sounds

too simple – it’s because it’s often made far too complex. In general, if you do your homework on the front end – and make sure that your short-list of vendors are qualified – any of them should be able to handle the “technical functional” requirements of your project. So, the decision will (and should) come down to the following business intangibles:

- a. Which solution will meet all my business needs the best?
- b. Which solution will be easiest to use, assuring high adoption? Keep in mind our audience of contributors, reviewers and approvers.
- c. Which solution will enable me to get up and running the fastest?
- d. Which solution provides me the best support and ongoing service?
- e. Which solution provides me the flexibility for content management that I need to move forward
- f. Which solution will scale as my needs grow and change – facilitating change instead of impeding it?
- g. Which solution promises to provide the best return on investment?

2. Implement & Integrate

Entire books have been written about this next phase so I certainly won’t try to capture all the detail here. Additionally, the implementation and integration will differ greatly depending on the type of solution that you have chosen (e.g. installed vs. hosted or commercial vs. open source). But as you put together your project plan consider the following helpful safety tips:

- a. Check your time before you send the check: Depending on the solution you choose and the size of your project it can take anywhere from 30 days to 12 months to implement. Be sure that *before* you choose a vendor, that you get an estimate and/or commitment on the implementation time line and that it meets your business need.
- b. It’s a process - don’t try to boil the ocean for launch: If it hasn’t been communicated frequently enough, here it is again: content management is a process. You will assuredly not get it exactly right upon your first launch. There are always unforeseen obstacles and more often than not something will be left out. So, accept that now, and don’t spend weeks and weeks trying to capture every little feature, workflow step, approval process and/or template that you’re going to need. Phase your launches and get the key functions up first. Your CMS tool should be flexible enough for you to make easy and fast corrections along the way, and of course after you’ve launched.
- c. Take Inventory – Where’s the content who’s got the content?: Early in the implementation (or even before) conduct a content audit. The biggest challenge you will face during this project will be the migration of the existing content into the new content management system. Hopefully it’s

the last time you're going to have to take such a project on. Create a list or a spreadsheet that documents the entire content inventory. For example, in a Web content management project, the audit should list all the pages on the Web site, whether they will be included in the new site, where they will live in the new site (assuming a re-design) and whether it needs to be edited prior to moving. Then, you can use that as a checklist when migrating the content.

When you determine the strategy for content migration, consider that you will likely never want to do this again. So, take the time now (if you can) and re-calibrate, re-categorize, and take care in how you migrate your content. This is the time to start breaking the content down into its atomic bits that will later be used for repurposing and re-using that content. For example, if the "Title", "Author", "Date" and "Body" of a page are all in one field today, why not take the extra time to manually import those into three separate fields in the new CMS. This way, you are taking a big step down the road of content re-use.

Also, go back to the previous checkpoint. Find out the "critical mass" of content needed to re-launch your Web site and draw a line there. You can always go back and migrate your "archive" site when you have the time.

- d. All Content Should have an Owner: There should always be someone responsible for the quality and placement of all the content. These can be different people for different articles, assets, sections or pages on the Web site, but they all need to have an assigned owner responsible for making sure it is up to date and correct.
- e. Simplify your life, your workflow and your approvals: When designing your workflow and approval processes for your new CMS, resist the urge to use the technology to "herd the cats". If your workflow process is too complex or cumbersome, be prepared for resistance to adoption of the CMS. The main goal is to get the new CMS adopted throughout the organization. Keep it simple to begin with, and then add restrictions as people either violate something, or need to be managed.

When you're through with the content migration process, and have successfully launched your new Web site with the CMS integrated you're ready for Step 3.

3. Manage & Maintain

Choosing the right CMS tool is important, but along with your more comprehensive strategy, developing the right plan for services and support of that application is even more important. For some reason, services often take a back seat to product selection during the early phases of a CMS project, when budgets

are often set. This may have something to do with the difficulty for software vendors to differentiate their services, and thus their desire to focus on product features and platform choices.

The two pieces of successful services are implementation and ongoing support and maintenance. Getting them both right is a requirement; but the more neglected of the two is, of course, support and maintenance. The consequences of failing to implement correctly are clear – the software doesn't work, is clunky or buggy – or all three. The consequences of failing to manage and update the system are much less clear, but over time are just as severe.

A well-chosen, well-implemented, but poorly maintained content management tool will always lead to failure. It's sadly ironic that the software system put into place to enable a Web site to be managed can also be that site's eventual degradation. Imagine an IT department which has a dedicated group of CMS experts; always ready to respond to any request by a Web site manager to adjust the content management tool. Unfortunately, in most cases, this simply isn't possible. Having an expert integration firm at your beck and call to make system changes can be untenable as well – even if you can find one willing and available to work on a system over many years.

Usually, the internal IT group is chosen as the answer to this challenge, but it can certainly be a problematic to develop and maintain expertise in the software application and find free developer time, especially when rapid changes are required over and over again.

But wait, didn't we just state that it's a requirement to have good support and maintenance? Hence the dilemma. Of course, these problems are solved to a great extent by the software as a service (SaaS) model. But most organizations haven't moved in that direction yet, and need to find a balance between internal service levels and cost/resource availability.

The other half of the ongoing management of a content management implementation, and just as important as having developers working to adjust the application over time, is the application "owner". Often this is the same person who manages the project implementation, who later trains new users, plans application changes, works with vendors, and supports system users. Owning the CMS tool is typically only a part of this person's job. They often own all of the other Web functional pieces – search, email campaigns, analytics, and so on. They also may own responsibility for the site's content. Whether the application owner relies on an external team, an internal team, or a combination, that team needs to exist and be responsive. A service level agreement, even if it is just a simple, internally created document, is a great document to work from. It will set expectations for everybody's responsibility.

So the bottom line is this: don't skimp on building post-launch services into the

project plan and budget as you start your next CMS selection and implementation. Define the players and responsibilities in the immediate post-launch “tweaking blitz” and for the multi-year maintenance, upgrade, and modification program. It’s not the glamorous part of the project, but assuming you’ve picked a tool that will be flexible and scale with you, the success in the support and maintenance phase will determine how long the tool lives and how successful it is in the months and years post launch.

4. Upgrade & Enhance

So, now you’ve launched your new CMS and your project. You’ve trained your end-users and you have a hold on your maintenance challenge. The content management solution you’ve chosen is flexible enough to handle ongoing system enhancements and changes – and now you can think about upgrading and enhancements to your project. This is where the process really begins all over again – and where putting good thought and work into your more comprehensive process really starts to pay off.

During your selection process, this should have been a big question for the vendors. Remember one of the core questions that any CMS vendor should be able to answer is how will your solution facilitate change to my ongoing strategy and not make it hard for me to re-design, tweak or enhance my strategy for managing content.

Assuming you got a good answer there this will be key during this phase. Inevitably you will want to add new sections to your Web sites, you will want to add new micro-sites, new landing pages, new integrations with analytics and reporting. You’ll want to break down your content for publishing to social networks, you’ll want to take that next step into Web 3.0. This means developing new templates, new workflows, new enhancements to your tool.

The key here is to approach this in just a mini-version of how you approached the initial project. So, you can go right back to the beginning of start the process all over again. Create an addendum to your Project Definition document – and move on from there. Hopefully, you can skip the selection of a CMS tool because you’ve chosen one that will grow with you. But implementing the changes fall right back in line with the process.

Choosing the right CMS tool, will truly strengthen your business. It will not only create efficiency for the Content Management process, but (depending on your business) provide you with a number of opportunities to create competitive advantages, revenue opportunities and new avenues for customers and partners to communicate with you.

You're an expert in your business – and you shouldn't have to become an expert in content management in order to be successful. Consider working with a content management vendor who will become a core part of your team as a content management expert.

Putting It All Together

The Web is evolving. Whether we place a version number after it to give ourselves a frame of reference or whether it just evolves doesn't matter. From a content management perspective, this evolving Web is inviting us to segment our content into smaller and smaller chunks – and to describe that content much more fully. By taking steps to do this as we evolve our own content management strategy – we are preparing for the semantic Web – or quite frankly for whatever opportunities present themselves. There will be tremendous business opportunities for those that embrace this capability in their content management strategy.

The implications and opportunities will differ greatly depending on the business that you're in. But whether you're avoiding being a cautionary tale, taking advantage of a new business opportunity or just making the content management processes in your business more efficient, these new capabilities will have great impact. As a business leader, you've got to consider these implications, and create a plan to address them.

To be sure, the steps you take today are the first ones. And as a process, there is room for mis-steps. Of course, the earlier you start, and the smaller steps you take, provide you the room to make many more mistakes than you might otherwise. As you formulate strategies, and select tools – you should start at best practices but don't end there. Develop your own measuring devices; your own tools for what works in your business – and remember that all content shouldn't be managed equally.

Your customers will not care what this is called, or how you manage the content, or what your internal capabilities are. They will just know that this exists, and how your organization deals with it will be the indicator of whether it helps you or doesn't.

As Yogi Berra once said “you have to be careful if you don't know where you're going, because you might not get there”. In managing our content beyond Web 2.0, we may not know where we're going – but if we prepare, and establish a strategy and a process – it doesn't matter because we'll know we're ready to be there.

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- ⁱ http://www.forbes.com/2008/09/08/ual-tribune-bankruptcy-biz-media-cz_ja_0908ualstory2.html
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- ^v http://en.wikipedia.org/wiki/Semantic_Web
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- ^{ix} http://www.cmsmyth.com/about_the_myth.aspx