Overcoming Challenges in Higher Education Content Management Projects

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INTRODUCTION

You Are Not Alone

The stories always repeat, with a few adjusted details.

- Your university website has 200 editors, but communicating changes in the process is like pulling 200 teeth.
- Different departments can't manage to communicate effectively, so voice and tone are torn asunder.
- There's no accountability, except for the small team of communications staff unfortunate enough to have their email address visible on the site.

This is the story of web content management within a higher education institution. But it's also the story of organizational change, departmental politics, and the crawl of institutional progress. It's the story of the marketing department's frustration with the existing content management system, and IT's frustration with getting an entire university to understand platform, security, and feasibility needs.

It's the challenge of a higher education content management project, whether it's an ongoing operational project or a fresh new website. And every higher education institution has those challenges.

You are not alone. Though it may feel that way sometimes, you are not alone.

Higher education institutions (which, in this document, we will shorten to "HEI") are among the most challenging organizations when attempting to implement web content management. This is due to a unique intersection of factors endemic to institutions of this type — factors that originate from a broad spectrum of domains: history, human resources, organizational psychology, technology, and use cases that are not commonly found in other types of organizations.

This paper is the result of more than 19 years experience in content management, and includes interviews with a number of higher education institutions. The examples run the gamut from a private liberal arts university to a large state-run school.

Through it all, we find that, even 25 years later, the web is still constantly changing — and people are constantly working to catch up.

You are not alone.

A Little History

Higher education institutions were, quite literally, the first users of the internet. The very first instance of what became the internet was a communication link between UCLA and Stanford in October 1969. Over half the eventual nodes on the ARPANET — the precursor to today's internet — were universities. The internet was literally born in universities.

Online access at universities was early and ubiquitous. Many of these organizations had significant online usage penetration in the 80s and 90s and were naturally among the first organizations to develop websites.

Faculty members had access to the internet in much larger numbers and with fewer restrictions than their corporate counterparts. Access to the internet was viewed not as a potential source of revenue, but as an educational imperative. It wasn't about profits, it was about the mission. Unlike corporations, higher ed institutions considered themselves vanguards of a new movement without the need to justify this investment with a counter-balancing profit.

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Freed from the restrictions of the profit motive, internet usage blossomed. The resulting community spread across all of academia, and this meant that usage of, and comfort with, the internet quickly became a job requirement.

The Landscape Today

Today's higher education internet landscape is both rich and tangled. While universities still help drive thousands of innovations in technology and web, they often do so with little editorial governance. The stereotype of a scatterbrained university professor comes to mind when you look at long trail of microsites, internal portals, mismatched designs, and patchwork integrations.

This is not the fault of the IT department, nor is it the fault of marketing, of the students, of the faculty, or of the leadership itself. It's the nature of organic, distributed technology growth, constantly improving and shifting without a clear direction, innovating toward "what's next," not "what's proper." And that's where the challenges of the websites becomes closely tied with the challenges of change management itself.

We are asking an always-moving, living piece of technology to sit still for a moment while we get it sorted out. We're seeing ownership of sites moved from one area to another, just as we see the audiences for sites expand and shift over time. We see the challenge of integrating new technology into our older content management systems, and we see the budget for these integrations contested across boardroom tables.

It's all very exciting. But it's not conducive to a tidy web presence. So let's start looking at the common challenges that higher education institutions face when planning content management strategies or implementations.

CHALLENGE #1

Budget and Ownership

Here's a question that seems simple: Who owns the website?

Yet the answer isn't simple. It varies from organization to organization, and oftentimes varies from department to department within the same organization.

It could be the IT department — a holdover from the days when an HEI's website was more of a technical and communications presence, and not deeply tied into marketing.

It could be the marketing and communications departments, especially in cases of admissions sub-sites or smaller, IT-sparse colleges.

It could be a web steering committee. It could be a central department for a network of colleges. In the case of several university athletics pages, it could even be an outside contractor.

The difficulty in HEI web ownership is that these examples aren't always exclusive to a particular website. A single web property may have three different owners depending on the needs: undergraduate admissions owns the admissions section, IT owns secure forms and payments, an outside firm owns the athletics section, and communications owns the rest. Four owners for one property, with overlaps throughout.

So who's going to pay for it?

Universities are slower to change the way their budget is set up — at least, compared to the speed that the web adapts and changes — because an HEI budget contains so many moving parts. A single adjustment in one line of the budget may affect several departments, a handful of faculty, all of the research and students attached to both, and initiate a cascade of political objections and group rivalries. We so often see budget tied to the original model, where whoever decided to run the website a decade ago is still on the hook for paying for it — or, the budget beyond the initial web build has disappeared now that it's gone live.

> *"Universities are slower to change the way their budget is set up — at least, compared to the speed that the web adapts and changes — because an HEI budget contains so many moving parts."*

What this does is muddy the waters of web ownership, separating it from web budget, leading to one (if not all) of the following:

- There is little to no web budget for maintenance or content improvements because it's assumed to be folded into another department's budget.
- A single department exhibits a stranglehold on the web budget because they have always had that budget, controlling the website despite not being the key stakeholder.
- Multiple departments battle over a single web budget as they fight for prominence on a site that's siloed and fractured.

It's organizational politics at its best — and worst.

The Solutions

Achieve Strong Executive Backing

A key method to prevent organizational politics from overwhelming your project is to seek and achieve strong executive backing, ideally from the university president. A sense of urgency must be established from the top, and this executive must be available for arbitration and tacit enforcement of organizational mission when strong personalities and different mission perspectives conflict.

Often, you already know who this person might be. When HEIs are running through a governance rut, it often boils down to what author and digital governance expert Lisa Welchman calls "governance by power"[1]: the idea that when the governance plan is

[1] *Managing Chaos: Digital Governance by Design*, Lisa Welchman

not formally laid out, the power often goes to the person with the loudest voice, or the largest degree of influence.

This center of influence is the first key of developing a web plan. Get this executive on your side by showing how the load can be shifted and spread. Focus on outcomes, not on details. If there is a need for a better organized site directory, don't come to your executive backer with a set of wireframes and a technical document — come with an estimate of how a user's time on site will go down if they don't have to search for phone numbers, or how much time will be saved through the central receptionist.

Determine Who the Web Owner Is

Moving a website from one department to the other is one way to — rather demonstrably — determine who owns the web practice at a HEI. But there are other, smaller, incremental ways of taking on the task.

One solution is to create a web steering committee that takes ownership of the site through bi-weekly or monthly meetings, allowing leadership to have a chance to speak their mind while keeping the original mission and vision of the site intact. The challenge of a web steering committee is making sure there's a diversity in roles and people who are willing to speak up when needed. But with a web steering committee comes a qualified discussion on web practices, which makes web ownership seem much more stable.

The web steering committee is only a governing body, however. Real ownership happens at the lower levels, where people are actively creating and writing content for the site. These are the people who not only need to be represented in any web strategy discussion, but also require a level of trust and confidence. The web moves fast, so we need to allow our web owners to move just as fast.

In recent times, this means making a clear delineation between what is considered technical and what is considered editorial — a balance that requires strong communication of intent between both sides in order to better facilitate any possible budget requirements.

For example, at the University of Redlands in Redlands, CA, website content and design is clearly owned by the University Communications Department, which houses the top-level marketing and communication efforts for the University, while the code development and support is owned by their IT department.

“The University Communications Department only handles the content on the website. The other systems are outside of our domain,” Jaye Howard, Manager of Web Strategy & Interactive Services at Redlands, explains. “We normally focus on the top level pages of the website from the main menu landing pages down one or two levels. Content under those pages are edited and controlled by the individual departments or organizations. Each has at least one editor that has been trained to perform basic content management tasks.”

This means in addition to the clear separation of IT and communications, the site’s editorial content is two-tiered itself, which allows for departments to handle their own specific content without worrying about adjustment of higher level content. Howard explains that there are some systems in place to assist with this — a web governance system that can flag spelling errors, missing images, and broken links; and a support system for department editors who need technical assistance with their pages — but otherwise they are on their own for selecting the finer details.

This kind of partnership also helps the university capitalize the project. It is clear who owns what, and so web funds can be partitioned and lobbied for more than just the initial cost of web development — instead, each major stakeholder group gains a bit of freedom in budgeting for yearly maintenance, training, year-to-year operations, and one-off projects. Instead of making up a budget on the spot whenever content was required, there needs to be a more structured budget — which makes for a more structured ownership and a clearer set of tasks.

The combination of a web steering committee to help determine priority, and the allowance for departments to gain their own voice and editing requirements in the case of finer details, helps deflect questions of who owns the site, instead adjusting the focus on what each stakeholder needs to pitch in to make the collective web property a success.

CHALLENGE #2

Audience Diversity

Ideally, websites are built to cater to specific audiences. But think about the average higher education institution website: it's a vessel serving multiple audiences from all walks of life.

It serves the audiences that are easy to separate: graduate and undergraduate; parents and students; new students and potential students. But it must also serve dozens of smaller sub-audiences: transfer students, non-traditional students, international, military, etc. And that's just dealing with the admissions portion of the site. There's also:

- Current students
- Educators
- Alumni/Supporters
- Media/Press
- Other influencers
- Fellow academics

The fact is, more than almost any other industry, HEI are tasked with serving more people, with more complexity, in a more challenging web environment. How do we tackle audience diversity?

When we talk about the challenge of reaching different audiences, we're not just talking about different people needing different information. We're talking about the struggle of disseminating that information to audiences that often rely on completely different communication channels.

There's the student who accesses the site from a mobile device. There are students from differing economic backgrounds who have different financial needs, different travel access, and even different broadband speeds. Which means content, design, and development requirements for a university site need to either be drastically broad, or make the hard decision to cater to one audience over the other.

Additionally, there's often a blurry line between external/public content and that intended for audiences inside the organization itself. Much of the content publicly available on the average HEI website only has value to the internal student body, educators, and administrative personnel. On the opposite side, once a student has accepted, entire sections of content become irrelevant.

When a website is asked to serve everyone, it tends to serve no one particularly well.

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There is often internal disagreement as to the primary audience of the website. "Marketing" can be a dirty word in academia, and many members of faculty bristle at any sales angle to the organization's website.

Even if the organization has implemented a CMS with enough personalization features to effectively service multiple audiences from the same site, training and effectiveness with these technologies is rare. Dynamically-assembled personalization can be extremely complex, requiring considerable editorial effort and maintenance to execute well.

When it comes down to it, nothing will ever be equal. It's impossible to make every single person happy. So our goal becomes trying to make things as equal as possible.

The Solutions

Identify and Document Target Audiences

For each web property, the intended audience and their related outcomes should be clearly defined. The process of this definition should involve a cross-section of the organization, strongly arbitrated by the project stakeholder who holds the final decision. Document this information clearly.

When the University of Sioux Falls, located in South Dakota, approached this divide, they made the decision to begin sorting out audiences based on web solution. They understood that their internal MyUSF site was filled with internal content, and is not relevant to the incoming student; likewise, their main site is, first and foremost, a marketing site.

Even in this case, there is always a bit of internal strife. “The squeaky wheel gets the grease,” says Web Programmer/Analyst David Cone, alluding to the fact that even when things were portioned out for different audiences according to their needs, some departments and agencies are always going to want to be prioritized.

Persistence comes in handy here. While there will always be a tendency for departments to look out for their own, over time the needed outcomes become more clear to everyone. At USF, in the last 5 years, people have started to understand that usiouxfalls.edu is a marketing site. This works because MyUSF is more robust — allowing space for all of that internal content (documents, class-specific message boards, class registration) to be moved off of the public site. More importantly, it makes the search for information easier.

Develop a Plan for Internal Content

With those audiences in place, the next step is to understand the separation of what is relevant to someone who is deciding to spend their money on a higher education institution, and what is relevant to someone who is already spending their money on a higher education institution.

The easy answer here is to make the site less cluttered by pulling off non-essential content to a separate portal or area on the site. By “non-essential,” we mean content that does not move someone to begin spending money at an HEI. We’re talking about content that does not drive a specific marketing goal. We’re talking about the separation of new student vs. established student content.

This definition is crucial before we can begin planning for internal content. In 2011, Concordia University Chicago, located in Illinois, did this through use of a mission statement. Not a mission statement for the university, but a mission statement for the website.

“Previous to 2011, our website was a catch all for internal and external,” [Concordia University Chicago’s] Senior Digital Content and Social Media Manager Karla Hein says. “So we developed a web policy and communicated that out to faculty and staff. We determined who is in charge, and we differentiated between the two audiences.”

In doing so, the university has codified the separation of public-facing content and internal content, and has developed a definition of what constitutes internal content in the first place. Karla continues: “Our mission statement is related to external audiences, new students, and friends of the university. So when people ask ‘who is this site for?,’ we can answer based on a true definition.”

Over the past five years, the mission of the site has slowly become more accepted, and the web mission statement is about to come into play. According to Hein, “We have a good opportunity coming up, since we are updating our portal. We are starting to look at a system of minor updates, instead of waiting five to seven years to do an update.”

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— Karla Hein, Concordia University Chicago

“With that we can remind faculty and staff the process and the purpose.” The university will then gain acceptance that the public facing site can move faster and last longer without the weight of non-essential content.

CHALLENGE #3

Managing Expectations for a New CMS

Virtually every single higher education institution already has a website. This means that most all projects are re-implementations of a websites that already exist, that editors are already publishing to, that already contain content, and that have embedded themselves deeply within an organization. An expectation of functionality already exists making managing expectations for a new CMS more challenging.

What's more, the problem is not just the implementation itself. Most HEI websites have large amounts of active content that must be migrated. A migration project of this type normally involves thousands of pages — sometimes tens of thousands — and dozens of different content types. All strategy, design, and implementation aside, for many projects, the largest expense is the migration of content from one CMS to another.

There are two things at play in this challenge. One is the fear and uncertainty of moving to a new CMS — both trepidation from editors and skepticism from an IT staff that is already used to the quirks of the existing system. The other is the underestimation of just how long migration can take, especially when content is unstructured, or if different types of structured content is being migrated into a similar content type.

Like any long-lived web property, HEI websites normally have an enormous depth of legacy content, some of which dates to the dawn of the web itself. It's not uncommon to find content dating back decades and to have to discard more than 90% of the entire domain of content when migrating.

Before the advent of the modern CMS, many HEI websites were created with legacy, desktop-based editing systems like FrontPage, Dreamweaver, Contribute, and hand-coded HTML. Much of this HTML only loosely conforms to (or — more commonly — outright violates) older specifications and includes a prohibitive amount of embedded formatting and deprecated tag structures. Retaining this content during a migration involves considerable "scrubbing" in order to bring the HTML up to today's standards.

When the modern CMS was introduced to higher education, it was often a decoupled system where the editing environment is separated from the delivery environment and it created static HTML files. This paradigm is therefore entrenched in HEI, which makes switching to a modern, coupled platform difficult from a training, mindset, and technical perspective.

This can cause significant disruption when we take an entire IT and marketing staff and drastically change not only their tools, but the very paradigm upon which their tools are built. We need to ease into the project, one bit at a time, all while understanding the time it will take to not only manage content toward a new system, but also how timelines and expectations will change depending on how structured and movable the existing content is.

The Solutions

Develop an Internal Marketing Campaign

Consensus among web teams and the larger organization can be difficult to achieve within HEI. So sometimes the best thing you can do is sell the new integration among those who will be most affected.

Start by developing a clear statement of the problem and the goals for the development project. Developing a sense of urgency within the organization is critical, as the distribution and diversity of editors and audiences can foster an attitude of fractured objectives — namely, when people focus on their own niche needs over the long-range, high-level strategy of the entire site. If you ask people what they'd like to see, they're going to tell you exactly what they want to see for "their" audience and objectives, with the assumption that it will then perform well for everyone else.

Because most HEI have little communication among the full group of editors, shortcomings felt by one group are often not shared. This is where the concept of a web steering committee can come into play — a representative focus group who can relay issues and questions among the larger development team throughout the process, hopefully helping every area feel represented, even if they don't get priority treatment.

Even with this representative group, effective communication beyond meetings will prevent mutiny. We've worked with several HEI in the past that have created a progress blog, or committed to bi-weekly progress reports, in order to keep the entire staff and faculty up on the web process.

South Dakota State University, located in Brookings, handled this through a section on their website that cataloged the entire CMS search process. Then, they offered information sessions prior to the launch of the new CMS to prepare faculty and staff for the change. The communication effort continues, beyond the CMS search process, and has evolved into a mix between a style guide and CMS resource for website updates. (sdstate.edu/university-marketing-communications/web-development)

This goes beyond just the website itself and into the content governance process. At the Morgridge Institute for Research — a non-profit biomedical research institute co-located at the University of Wisconsin-Madison — editors and stakeholders are kept in the loop through what Senior Advancement Communications Specialist Megan Costello calls "low-hanging fruit."

"People are busy, and I want to respect everyone's time," Costello says. "My first goal with stakeholder communications is to grab low-hanging fruit: is our CEO sending an email to all staff? What's he saying during Monday's leadership meeting? Is there an opportunity for us to engage people via email, our website, FAQs, in-person meetings that are already happening on a weekly or monthly basis? Once we've checked off those items, what else should I do to make people feel like they're being heard?"

That's the ultimate goal right there: to take the complicated web of site users, editors, owners, and executives, and get to a point where they are being heard, even if their opinions and reactions aren't necessarily relevant or immediately put into action. Because while going heads down and working toward the finish can be more efficient, removing those pesky "suggestions" and "revisions" we all fear, the truth is that keeping the group abreast of strategy, design updates, tweaks and purpose will help frame the larger goals of the web process. Communicate, communicate, communicate.

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Understand the Relationship Between the Integrators and Editors

In many cases, a CMS is chosen because of its features, or because there is a strong internal push from one department to go in a specific direction. This means a lot of CMS implementations begin with a struggle between what editors want and what the IT department needs to make it happen. This is compounded when an outside group is brought in to handle the bulk of implementation — a third party, independent to some extent, has broached the already complicated relationship between editors and infrastructure.

Unfortunately, we often overlook these relationships when making the CMS decision. Digital Clarity Group, a research-driven advisory firm focused on helping business leaders navigate the digital transformation, discusses the struggles of choosing a CMS in their report, "Digital Transformation in Higher Education[2],"where they say: "It is impossible to overstate the importance of evaluating and selecting a service provider as an integral part of choosing CMS technology."

According to their research, "the most successful projects are when IT is involved, but the service provider drives the business value." In this case, we can expand this to the communications department as well — a multi-functioned partnership that includes the needs and user research of communications, the CMS knowledge and business value of a service provider, and the technical requirements of the IT department.

In our experience, this triad helps not only make the process go a lot smoother, but it also makes the CMS decision both collaborative and practical.

[2] *Digital Transformation in Higher Education*, Digital Clarity Group
digitalclaritygroup.com/digital-transformation-in-higher-ed/,
(March 2016)

Create Realistic Expectations for Migration

Migration takes a lot of time and a lot of money, and there's no simple way around this. Think of the items required just to move a single page from an old content management system to a new one:

1. Determination of "Redundant, Outdated, or Trivial" (ROT) content — Will this content move? Should it be scrapped? Is it repeated and should it be combined with another page?
2. Managing redirects, especially for ROT content — Where did this come from, and how will we direct search engines or actual people to the new page?
3. Combining content types for consistency and uniformness. Or, the opposite: determining when a single content type may need to serve two functions and thus need two new templates.
4. Adaptation of content that is not structured — in the form of large "blobs" of data, as author of *Content Strategy for Mobile* Karen McGrane coined, instead of manageable fields and "chunks."

And while some of this can be handled programmatically, the effectiveness of a development-driven migration depends on how well the original content is structured and how flexible the new site is for recognizing different content types. Even then, there's going to be a lot of manual migration work to confirm that content was brought over correctly, content types are working as they should, and new features are implemented.

In other words, we need to be realistic about the time migration will take. We need to recognize that whether it's an internal project or a project hired out to an outside firm, it's going to take time and involvement, and that time and involvement often can't be fast tracked.

Here are a few things needed to make the migration part of a project a success:

- Clear expectations on who will handle migration from the beginning
- A detailed look at ROT content: what needs to come over, and what is just dead weight to be left on the old site

- A plan to begin the migration process before the site is feature complete — and, often, before strategy and design are tackled
- An understanding of what sections can be migrated as is — especially with highly structured content — and what sections will require some level of manual work, either through manual content entry or manual "cleaning" of automatically imported content

This is not a negative; on the contrary, the migration process is the best chance most organizations get to review and adapt their existing content.

"...the migration process is the best chance most organizations get to review and adapt their existing content"

CHALLENGE #4

A Relatively Large Contributor Base

Higher education has a long tradition of direct web publishing with little or no oversight.

Faculty members commonly published research to public websites under the banner of the university without having to clear this content with any central governing body. Any attempt to exert governance or control over this model is viewed as overbearing at best, and sinister at worst.

This model has seeped into some HEI editorial groups, with a web team feeling at odds between their goal of clarity and brevity, and a faculty-led focus on large-scale volume. Even with an editorial team available to stem the tide, there's one fact that is universal: there will always be more people who have an interest in publishing than there are those who can effectively make editorial decisions for the site audiences.

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Higher ed projects present with larger numbers of content contributors from a larger cross-section of the organization than virtually any other type of organization. Compare the content contribution model to, say, a corporation. While a corporation often has an easily-identifiable group of contributors — many times consisting only of the marketing department — an HEI is made of dozens of somewhat independent departments, each with their own stake, audiences, and expected outcomes.

This structure of multiple units also has another complication: they often come with their own editorial and governance teams. Even if an HEI employs a centralized editorial team, they are still tasked with maintaining the vision of the individual department. And this is all without even mentioning the addition of both marketing and administration, both of which have their own editorial needs.

It doesn't stop there. Each of these groups tends to be larger than the typical corporate department. In additional to multiple educators that might want to publish public information, each department has support staff — including a rotating group of students working on behalf of the organization during their time at the institution.

The support structure to create quality editorial content and marketing is often not available to these departments. Training is rarely uniform and often poor. Editors understand the bare necessity to accomplish specific tasks, with little grasp of the larger factors of their HEI web presence and strategy. And, as we'll see in the next section, sometimes editorial consistency is impossible, given the different systems each university may use.

Through this all, permissions and security suffer under the preponderance of users and high turnover of the student population. Federated user management is often a goal that cannot be achieved. Central management of permissions is unfortunately rare. It's not uncommon to see a user database for the website independent of the rest of the organization.

The Solutions

Central Governance and Editorial Policy

While technology is important, it's the usage of technology across a broad cross-section of the organization that will help it achieve critical mass. To do this, CMS users have to view themselves as operating within the structures of a larger whole. It is important to allow "freedom" for individual units to operate as they see fit within a set of guidelines that is acceptable to the institution.

This means developing a central governance model and editorial policy that allows for flexibility, where an organizing editorial group can keep tabs on the brand, message, and audience goals while content creators focus on using their domain knowledge to maintain style and component consistency.

This is going to look different from organization to organization — some may need more of a focus on reining in content and aligning it with the style guide, while others may need more of an organizational focus on who does what. Regardless, what a governance and editorial policy needs is definitive answers for questions like:

- Who gets final sign off on new or revised web content?
- What channels need to be involved for things like legal, event planning, print/traditional media integration, and anything else that requires more than just a simple paragraph or photo?
- Will the model depend on a small central editorial team, or a distributed working group with representation from each major department?
- What level of urgency do we need to assign to news articles, vs. the urgency we need toward something larger like a landing page or body copy?
- Who handles archives? Redundant and outdated content? How often is the site combed for systematic content updates?

The list goes — and will always go — on. The real list depends on an organization's needs, and should be filled in around audience needs and expected outcomes.

Plan and Establish a Formal Training Curriculum

At the most basic level, a formal internal training program should exist for your CMS, and regular training classes should be available for new employees and those who want to improve their skills. View training not only as a chance to teach hard skills, but as an internal marketing tool to rally editors around your chosen platform.

In order for this to happen, of course, your CMS needs to support the ability to create different user classes with different areas of access.

It's worth noting: this is not something that everyone needs to do. Not everyone requires deep editorial access. When we talked to Briar Cliff University, a private university in Sioux City, Iowa, their Web Content Manager Michael Brauer walked us through the trials and tribulations he faced when trying to train the entire university on using their new CMS.

“We had a pie in the sky goal,” Brauer says about trying to get everyone on the same page. “But man, we were so naive. We tried to train everyone on the same system, and gave them access, and we wanted them to learn how to use their own section of the website.”

“And then reality hit.”

Because, while each professor had their own corner of the website, not everyone had the time or desire to make drastic updates — and many more wanted content to be pushed beyond the scope of the editorial plan.

On one side, you had the chairman of one university department, who had a working knowledge of HTML and very specific ideas on how his content should be written, creating an editorial issue for those on the central editorial team. On the other side, you had people who never bothered to log in and, when the time came to update their content, they gave up and still shipped it to editorial, as if no training had ever happened.

Instead of trying to be everything to everyone, they adjusted and now train department by department. Because a lack of resources already exists, this prioritizes those who will actually help with web content, while other content is still handled internally for those who have no desire to self-edit.

CHALLENGE #5

The Existence of Multiple Semi-Autonomous Units and Websites

Many HEI websites consist of multiple semi-autonomous departments, revolving around an administrative and marketing core. This organizational structure is paralleled in their website management and governance. We talked before about the multi-headed monster of a large contributor base — welcome now to the multi-headed monster of an HEI micro-site ecosystem.

Because the typical HEI has grown from the wild west of the self-published web, larger HEI websites are really several dozen (if not several hundred) loosely associated microsites, department sites, and external applications. We'll get to the applications in the next section, but for now let's focus on the struggle of keeping consistency — and brokering a common content model, in the event of a web redesign — between all of the different groups we discussed previously.

We've already touched on the fractured and semi-autonomous nature of most HEI, where departments and schools take care of their own content and seldom look to a central agency for help. Now we're seeing how that structure results in an architectural issue: if you give a group autonomy, the first way they'll show it is by creating something on their own.

This too often manifests itself as separate websites for each department. These websites might differ greatly in visual appearance, organization and information architecture, and editorial tone. At the most extreme, these websites are operated as completely separate entities, installed and running on their own servers, powered by their own CMS.

This might not be as much of an issue as it seems, except for one thing: not every message, audience, or expected outcome is unique to a specific department.

For example, take athletic recruiting. At first glance, this is a use case designed for the athletic department, who typically run a separate site connected to the athletic conference in which they are a part. But it's also a major focus of both student admissions — another department who often runs their own site — as well as the registrar's office, who is tasked with collecting a new array of forms, from scholarship approval to athletic-focused courses.

It's not as simple as just "making everything the same," because both organizational and political friction can force that change to take years. How else can we address the structural fracturing of an HEI website?

The Solutions

Develop a Style Guide to Keep Separate Websites As Consistent as Possible

First, we can centralize HEI styles and hand the keys over to a dedicated editorial group. This doesn't mean forcing all areas to conform, or taking away permissions and putting added stress on the internal communications team — it simply means stressing the importance of common styles, showing positive results, and providing assistance when in need.

It's a myth that most departments want separate-but-equal status when it comes to editorial help. They don't want to be on an island — it's just that, whether through budget or through a lack of time or editorial talent, they simply can't keep up with the higher editorial standards pushed by a communication team. There is no department or HEI organization that hasn't wanted help with the editorial process. It's our goal to make it easier.

For one example, let's look at Minnesota State University Moorhead in Moorhead, Minnesota. Between having roughly 200 web editors and contributors, and allowing for sites to be built in either the university's chosen content management system or an outside source, there is a major need for a central style guide for consistency.

In this case, the web team has to plan an editorial policy that allows for a bit of freedom. “The site can be within our web CMS — meaning they keep the university’s overall look and feel,” says Amanda Stegmaier, web designer and developer at Minnesota State University Moorhead. “Or they can choose to have their website on a separate web server, and they use whatever web editing tool they want to create/edit their site.

“They do have to adhere to a few university web standards, but not all. So we have a central style guide.”

With this method, consistency is maintained on the main university website through an approval method. Web editors can go in and make the necessary changes to their area, but the changes do not go live until someone from the Web Team approves them.

“The institution of the standards was a gradual process that happened over many years,” says Stegmaier. To Minnesota State University Moorhead, this longer time period — while not ideal — helped meet the least amount of resistance. It began with standardized web styles through CSS — allowing the CMS itself to act as a “bad cop” of sorts — and basic requirements like “last updated” dates and links back to the main site. Eventually, a more structured look became the norm. New leadership, combined an overall comfort in the changes being implemented, led to where we are now: a more unified look and feel, even across external subsites.

“At first editors were resistant to the standards, but now it is old news and everyone is pretty good about ‘coloring in the lines’,” says Stegmaier. “You always have those few rogue people, but that is normal.”

After all, it won’t always be perfect. And that’s where you need to pick your battles.

Pick Your Battles

“Our marketing department is treated as a firm or advertising agency,” says Erik Ebsen, programmer analyst (Web and New Media) at South Dakota State University. “They are in charge of branding university-wide.” This approach allows an HEI to pick the battles that need to be solved, placing focus on areas of the site that need more attention and allowing the brand to begin steering away from the “squeakiest wheel” issue.

And then, sometimes the site just has to be separate. Sometimes, there are compliance issues leading them, as with some foundation or alumni sites. Sometimes, there are individual departments that are so much larger than the idea of the HEI itself that it makes sense to go out on their own. There is no shame in that — over time, everything shifts and moves, and understanding which wheels to grease and which ones to let go is a crucial — and organizationally unique — skill.

CHALLENGE #6

The Need for Systems Integration

The average HEI is a complex organization, involving vast numbers of people, budget, and departments. So it makes sense that the average website of these organizations is also a complex system of department needs and interlocking technologies. After all, a great website does more than just show a text page or two.

This leads us to the complex world of systems integration, where we begin bolting functionality onto the main content management system: calendars, photo streams, ticketing, and more. How interlocking these integrations are often depends on the role of IT — specifically how it standardizes implementations across the HEI.

On one hand, IT standardization can be “soft,” with organizational units often making their own purchasing decisions. For example, a specific department or college may depend on a different kind of calendar or ticketing system from its neighbors, creating a mish-mash of departmentally budgeted technology. A large commercial and open-source software ecosystem exists to service this space.

On the other hand, many HEI have multiple enterprise software systems to manage their various subsystems. These systems are either built internally or purchased commercially, and IT strictly controls the available solutions to those that fit comfortably within the existing system. This, naturally, leads to less customizability and choice, but also helps streamline the IT department by allowing them to focus on one specific technology stack.

On either side of the argument — “soft” vs. “enterprise” — the available integration software runs the gamut:

- Parking and parking ticket management
- Food service management
- Residence hall management
- Desktop support
- Room scheduling
- Course scheduling, catalogs, and management
- General calendaring and groupware
- Etc.

At the very least, these systems must be available from the core website, and they often need to be integrated within it.

Furthermore, almost every HEI has two core technologies to service the academic needs of their student population:

1. A student portal, usually provided by a larger ERP tool (Jenzibar, Datatel, SunGard, etc.)
2. A learning management system (LMS; Moodle or Blackboard, usually)

Defining the line between content in these systems, and content to be managed in a traditional CMS for the “public” website can be confusing, leading to several related challenges:

- Integration is, by nature, risky. Any interoperability between two systems introduces stability, uptime, and data integrity issues.
- Integration is expensive. The average CMS implementation vendor will markup bids considerably to account for the unknowns of third-party system integration.

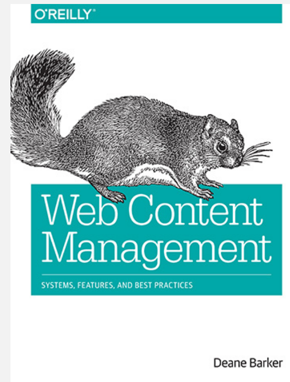
- Boundaries between the different systems can be blurry and strong editorial guidelines might not exist. Editors often don't understand where to publish specific information.

Therein lies the challenge: how do we balance the needs of our site audiences with the technological constraints of our existing content management system?

The Solution

Select a CMS for Extensibility

The biggest thing we can do to ensure the future of a website is choose a content management system that is flexible and extensible. We need the site to lay the groundwork for the future, not define the future through today's lens.



Searching for a CMS?

Deane authored a book covering the systems, features, and best practices of web content management. To learn more, visit flyingsquirrelbook.com.

This means making sure that entrenched integrations don't end up weighing down your CMS selection. The future of a website is tied to its ability to be customized and decoupled for new extensions — the more flexible those extensions, the more able the site will be to adapt and change with a changing technological (and user-driven) web world.

"Integrations have always been a conversation in past CMS selection processes," Ron Bronson, UX Strategist at the City of Bloomington and veteran of higher education web strategy, says. "But they have not been the ultimate decision factor. Things like ease of use, functionality, limitations of the existing system were more important decisions ... and the belief was that the integrations would either be configured to work, or in some cases, systems changed to accommodate the new CMS if necessary."

> *"The first thing we can do to ensure the future of a website is choose a content management system that is flexible and extensible. We need the site to lay the groundwork for the future, not define the future through today's lens."*

Because CMS platforms vary greatly in their ability to integrate and work with other systems, it's important to ask questions of the implementor or vendor during the initial selection process about viability (and the work involved in a custom implementation). At minimum, ensure the CMS has certain key areas of interoperability, including:

1. **An open API** — This allows you to programmatically import and link to content not contained within the CMS itself. For example, if your CMS has an open API, it will be much easier to develop a connection to most calendar or ticketing programs. Additionally, this provides the correct endpoints to integrate your site with an external content system, such as passing payment information through to a financial solution.
2. **Extensible user management** — Instead of managing user accounts on the site itself, this allows the site to draw accounts from an external directory, or serve as an external directory to other systems.
3. **Federated search integration** — Moving search to an external indexer — particularly one that allows for indexing of both core content and metadata, with permissions — often gives you more robust and knowledgeable search results.

The common thread of these three key areas of interoperability are that they move quickly changing (and, often, multiple use) content away from the content management system and into a centralized database or application — one of the common pain points of any HEI.

Then, beyond that, understand that the CMS and its integrations — whether it's a fully integrated single-source solution or a decoupled patchwork of systems — should serve the needs of the site, first and foremost. If it comes down to a chicken-or-egg decision of keeping the CMS or keeping the integration, the option that provides the best user experience should lead the way.

CONCLUSION

Commit to Incremental Improvement

Higher education institution projects are big, even when they're small.

For every site redesign, there's a hundred navigation tweaks, content updates, microsites, and web campaigns, each of which take the interdisciplinary approach of several departments and tons of input. For every integrated editorial team, there are dozens floating around the edges, worried they won't get their message in, wondering what they can do to help.

Because of this, it's clear: you can't do it all at once. Doing so will create an endless path of frustration and disagreement.

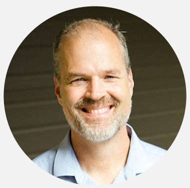
HEI projects should be more evolutionary than revolutionary. While it feels like the traditional model of a website points toward large projects that turnover the entire site, only to wither three or four years later until it's time to do it all again, we can see a subtle change toward incremental improvement.

This is where efficiency comes in — when the plan of development is quarterly, with goals and plans for functional, design, and content improvements staged throughout each calendar year.

Around that plan sits the people who can help. At times they feel like a hydra — a multi-headed monster with competing needs and vastly different audiences. But, if we can recognize the inherent complications present in any higher education institution, we can begin to see how to handle this monster in a way that moves the entire project forward.

Like we said in the beginning, you are not alone. Every HEI runs into these problems. Even more, you're not alone in your specific institution — after all, there are dozens invested in the success of your web presence, and they're all looking to someone like you to help guide them toward that success.

Good luck.



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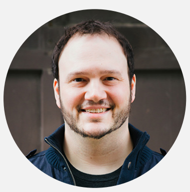

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