Lullabot

by Greg Dunlap & Matt Robison

All Carrot, No Stick

Maintaining Consistent Standards in a Decentralized Organization

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Table of Contents

Introduction

The web presence of a university is often a loosely coupled network of websites that act as subsidiaries under an umbrella organization. This presents unique challenges because there are so many stakeholders involved, and the varying needs can conflict.

To make matters worse, the umbrella organization might have responsibility for the overall web presence but have no real authority. They can entice, persuade, and cajole. They cannot enforce any mandates.

In the words of one member of an umbrella organization: “All we have is carrots. We don’t have any sticks.”

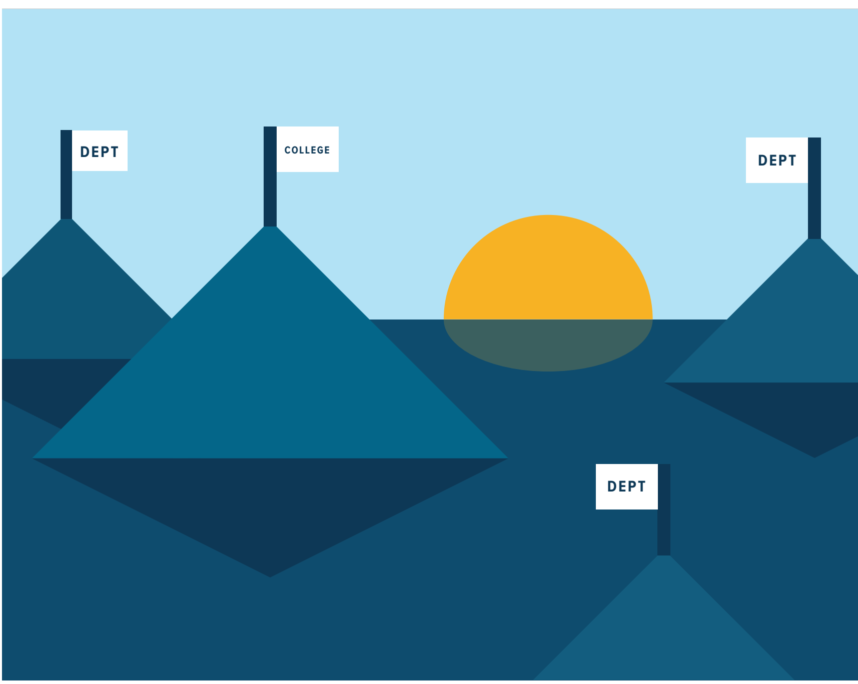
Decentralization becomes a challenge when you need to ensure that:

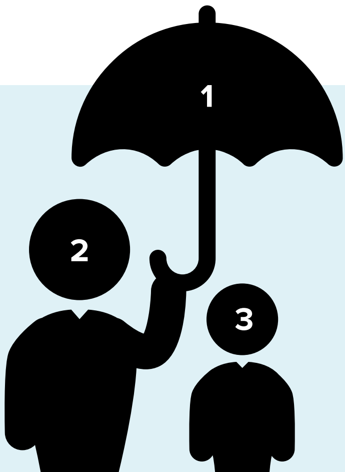
- Consistent branding is applied at every level of the organization

- Content quality remains high across a variety of independent teams
- Accessibility requirements are met across every property

We call these decentralized organizations “archipelagos,” borrowing the word used for a collection of islands or sometimes the sea containing a small number of scattered islands.

Of course, universities are not the only ones to suffer from this problem. It can also be seen in state government, large media organizations, and sports leagues. But they show up reliably in higher education due to the different ways that stakeholders, intended audiences, institutional conservatism, and department politics can mix.





1. UMBRELLA
2. SUBSIDIARIES
3. USERS

HIGHER ED

1. University
2. Departments
3. Students

MASS MEDIA

1. Conglomerate
2. Networks
3. Viewers

STATE GOV

1. State
2. Agencies
3. Citizens

PRO SPORTS

1. League
2. Teams
3. Fans

Why Governing Archipelagos Can Be Challenging

With most website projects, there are two main stakeholders: the organization and the users.

With archipelago projects, there are three groups of stakeholders: an umbrella organization, its subsidiaries, and the end-users they both serve. This triangle adds a lot of tension. In many cases, the subsidiaries hold sway over the umbrella organization (the university library commands a bigger budget and more prestige than the marketing department, for example).

As a result, the umbrella organization spends more time responding to the subsidiary needs than to the needs of end-users, and it loses focus on who the real audience is. Universities never send out RFPs with the primary goal stated as "We need to primarily design this site for tenured staff and the departments that bring in the most money from alumni."

But this ends up being the goal for many university website projects.

Success in this environment means meeting the needs of these internal users before you can even get to the business of serving any other audience.

Three Types of Archipelagos

Not every archipelago suffers from this "all carrot, no stick" problem. There are three types of governance models we have identified.

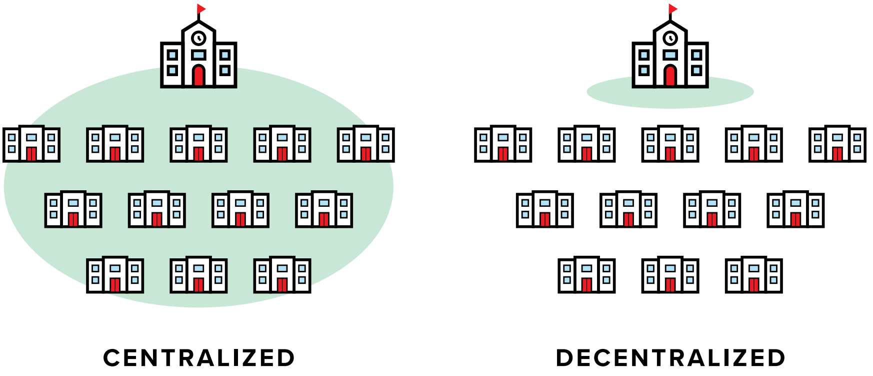
Centralized

The umbrella organization is strong. It holds sway on the technical platform and its implementation across all the subsidiary organizations. Everything from the content model, branding, design, style guide, content management system…all of it flows from the top down.

Typically in a centralized model, most of the staffing in terms of development, design, and strategy also lives in the umbrella organization. There will be subject matter experts acting as editors and content authors in the subsidiaries. Still, to ensure consistency and adherence to standards, their content will often be subject to further review by the editorial staff at the central organization.

Decentralized

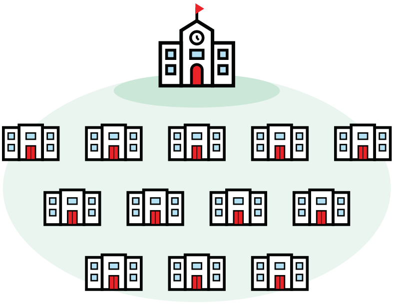
The umbrella organization is weak and subject to very strong subsidiaries. Everyone owns their own properties, and there is no centralized authority whatsoever. Subsidiary organizations will have their own staff, their own



rules around content authoring, and in some cases, even their own branding and design systems. Each island is its own fiefdom.

Harvard University is one example of this model. Departments run Drupal and share a small amount of common code, but aside from the 100 or so pages of the main website (harvard.edu), everything else is 100% autonomous. Each site chooses its own look and feel, branding, and messaging.

Mixed



MIXED

The umbrella organization maintains some level of control, and the subsidiaries maintain some level of independence. This is the most common scenario and the one that potentially presents more challenges.

Typically, the umbrella organization owns the technology platform, and the subsidiaries own the content. In some cases, the subsidiaries even have complete control of their branding and design system, but it is more common that they conform to some sort of design consistency.

On the surface, this model makes a lot of sense. Each entity is owning the piece of the pie that falls within their area of expertise. But problems occur when the umbrella organization wants to have a coherent content strategy across all these sites or maintain certain standards and they don't have the authority to make it happen.

Investing a lot of money in a new strategy or platform comes with many risks if the subsidiaries can just take their toys and do their own thing. You must take care not to give them excuses to leave. If too many subsidiaries avoid the new standards, the whole project might end up being a waste.

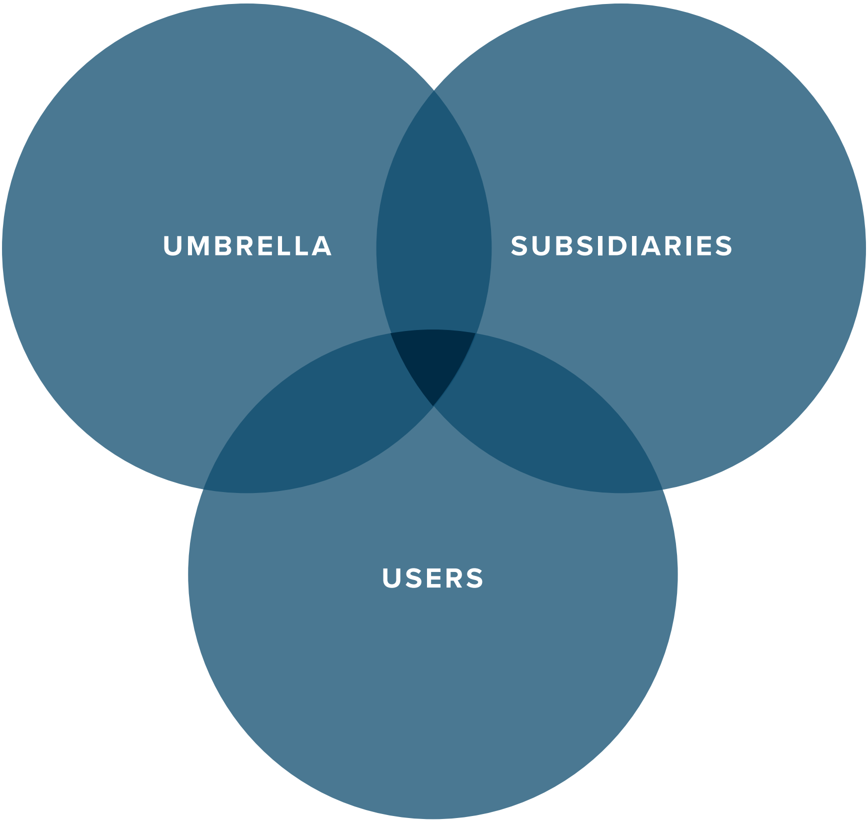
Not to mention the potential human cost involved. At state agencies, for example, an ideal platform is responsive and accessible so that it can serve the most vulnerable of the population. If an agency decides not to use that platform and its own solution fails to live up to certain standards, it can leave many people in the lurch. As one end-user answered, after being asked what would happen if she couldn't access certain state services: "Then I guess I don't eat."

How do you succeed in a "mixed" model environment? How do you solve the various challenges and juggle conflicting demands when you have no authority to dictate terms and solutions?

You have to build the most enticing carrot you can possibly imagine.

The Magical Intersection of Success

Your task is to find commonality among a group of subsidiaries with different use cases and different audiences, allowing them to work within the same system without excluding their unique aspects. Instead of final end-users, you focus on the people in the middle to find that magical intersection where all their needs can combine into one solution.



After this common ground is established, you need to figure out how to extract implementable ideas from it. You must remain focused on this common ground. If you don't, you risk isolating groups or individuals. They feel disempowered, so they strike out on their own to find solutions within or outside of the system.

And even when new solutions are rolled out successfully, they can fall apart over time due to a lack of persistence.

If your university is one of these "mixed" models, where the umbrella organization has limited (or no) authority to mandate standards, there are four key tasks that need to be done to manage the archipelago successfully.

- Do The Research
- Build Bridges
- Verify Solutions
- Measure and Iterate

Research

The first step is to dig into the problem and find those patterns and commonalities you can use to push the project forward and get buy-in from every stakeholder. There are two ways to come at this: user research (both internal and external) and content analysis.

User Research

Most user research in the last decade has focused on external users of a website. Your "customers." For a university, these might be alumni, students, parents of students, faculty, etc.

However, in an archipelago, it can be useful to bring those same tactics to bear on your internal customers. These will be your various schools, departments, faculty (again), deans, and more.

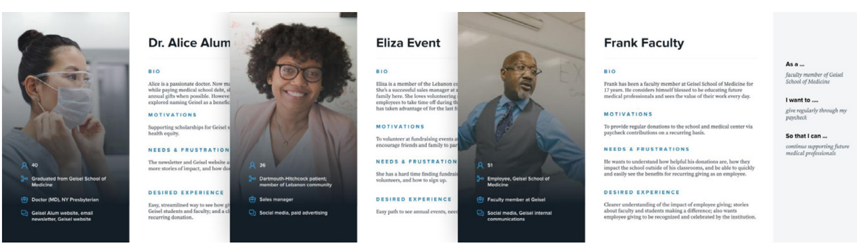
Why user research? It helps you prioritize your target audience. Otherwise, you just try and do everything for everybody.

For external users, that can manifest as dumping every piece of information out there "just in case" with no sense of how it should be prioritized. Or worse: everyone fighting over how it should be prioritized. Users have to lean on a search function that probably doesn't work very well. No one can find anything. No one is happy.

For site editors, it can manifest as giving everyone HTML access and hoping for the best. This leads to an unmaintainable mess with zero chance of standardization or content re-use.

User personas are typically used to focus on solutions for customers, but you can use them effectively for your internal user base. For example, the State of Georgia created very detailed user personas for their agency users, dividing them into the six most common personalities and laying out a variety of information that defines them. Each persona included their motivations, frustrations, common software, goals, and much more. They also defined common "verticals" for their agencies, such as Elected Officials and Law Enforcement.

Just like with your customers, having personas allows you to take a very broad base of people and narrow it down to the groups you need to focus on. It also allows you to spot commonalities. So develop some personas.



Now, as you talk to users about their use cases and pain points, you can make sure you get a good representation for each persona. You are more likely to include the full range of subsidiary use cases.

As you interview them, you will hear a lot of complaining and cataloging of needs. You need to dig for the “why.” What motivates their use cases? What are they actually trying to accomplish when they hit roadblocks? Often, the obvious issue isn’t the actual issue.

Here is an example.

On one archipelago project, everyone wanted us to address design issues. They complained about not having access to something, or they needed to move a photo here, or make it bigger there, or control the output for a call-to-action.

Many of these needs contradicted one another. There was no consensus other than everyone wanting some variation of “just give me HTML access.”

We asked two questions to get to the root of the problem and try to find the magical intersection.

Why did they need this specific design control?

What was the driver or business goal behind it?

Internal politics or directives from those in authority might be common reasons for these requirements, but that was not the case here. As it turned out, there were no specific design goals. They also were not trying to fulfill specific requests. They didn’t actually need to place a specific photo in a specific place.

The main driver: they just wanted to "break up the wall of text." They thought their pages were "boring" and looked "dated." The more we researched, the more this specific complaint popped up.

With the problem identified, we could now design a solution and validate it with acceptance testing.

When doing user research, don't take what people say at face value. This adage is true: you need to ask why five times before getting to the heart of a problem. It's easy to just do what you're told, but you won't be serving your users very well.

When you understand users' motivations, you can design for them, and if you can design for them, you have a way better chance of keeping them happy.

There is no shortcut to this—just a lot of conversations.

By taking the user research tactics normally used for end-users and applying them to internal users, you get a better picture of your stakeholders at the subsidiary groups. By constantly focusing on the "why" of their needs, you can start to put together commonalities and gain real insights into problems.

And if you can solve some real problems, you'll be able to dangle a very tasty carrot in front of these users.

Content Analysis

To do proper analysis, you need to do an inventory and audit. At the scale of archipelagos, this can be difficult. You might not even know all of the sites that exist under your domain. And once it's all gathered, you need to be able to sift through it to find the relevant content for a particular conversation. Out of the millions of pages of content, what items are relevant to the three stakeholders I am talking to today?

This is more art than science.

Here is what you must do:

1. Get an aggregated inventory of all content from across your sites

1. Divide in different ways and research the outliers

Use a tool like Screaming Frog to crawl your sites and generate the inventory of content. At every URL. Your initial instinct may be to limit what you crawl because there is an enormous amount of data at this scale.

Kill that instinct. Crawl everything.

Large data sets can be filtered, sliced, and organized, but you can't do any of this with data that you don't have. Every time you have to go back to the well to crawl more content causes additional delays. Do it once. Get it over with.

If you have a large amount of data, don't expect to use Google Sheets to sort through the data. Just get Excel.

FIND THE EXTREMES

Armed with this large amount of data, start looking for the extremes. Extremes of what?

Anything. Outliers can provide a lot of insight into the various teams within your archipelago and the content they create.

Look for edges around these items:

- Page size (largest and smallest)
- Google Analytics visits (what is nobody looking at? Why?)
- H1/Title size (can point to poor editorial practices and difficult migrations)
- Text:HTML ratio
- The number of embeds (images, tables, social media, etc.)

But you might also come up with other custom properties to measure.

Let's look at page size as an example. Seeing what lives at both the highs and lows of this measure can be really interesting. Some of the reasons will be obvious, like huge tables. But sometimes you find something interesting.

In one archipelago project, we found the largest page on the entire network of sites. Someone had base-64 encoded an image and embedded it into the HTML using the WYSIWYG. This told us a lot of things, but mainly that end-users of the CMS can be very crafty in getting around limitations. You can use this information when planning out editorial tools.

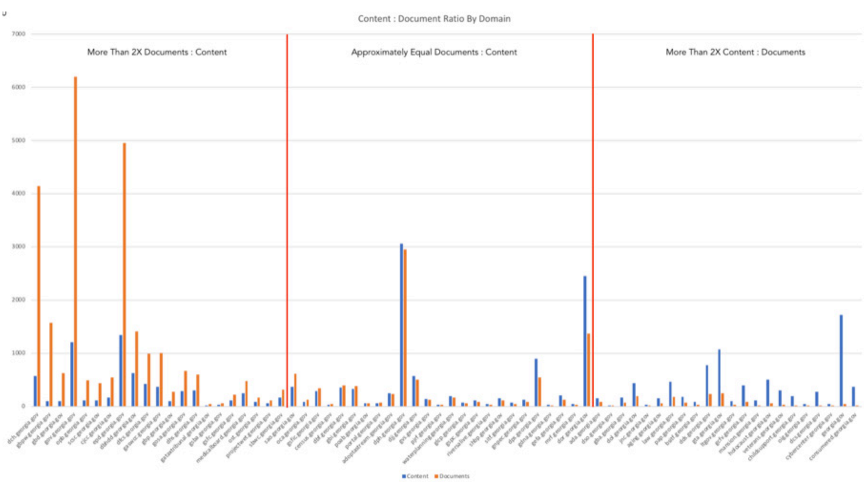
Looking at the smallest page sizes can also yield insight. In one case, we unearthed some document management problems by looking at this metric. A large number of pages were nothing but an uploaded document with no context or metadata.

Most of the time, you won't find anything of note. This is good. It lets you move on to the next thing. You don't want the extremes to be a nightmare.

AGGREGATE AND DIVIDE

In an archipelago, some information will be important in aggregate, some will be more important based on the islands, and sometimes both will be important in different ways. You shouldn't ignore the importance of either and always look at the data through both lenses.

Here is an example. On one project, we noticed that, across all sites, there were far more PDF and DOC files on the sites than there were HTML pages.



In aggregate, this told us that an enormous amount of information was locked away in these documents that might be worth getting out.

However, when we zoomed in, we discovered that the highest PDF to HTML content ratios were limited to a smaller number of sites. A lot of sites did well and limited PDF abuse. And even in sites with a lot of PDFs, there were outliers.

If a site has to offer a lot of printable forms (like a Department of Revenue, for example), then having a lot of PDFs makes sense. But some sites had weekly meeting minutes posted that went back ten years. This highlights potential problems around governance and best practices. How long should these documents be kept? Are they really that important? Are there better ways to manage them?

By looking at the content being created from different viewpoints, you'll be able to gain insights and identify systemic issues for the organization at large and the individual islands.

Building Bridges (or Tunnels)

One of the biggest challenges we run into is the siloing of information in an organization. Problems aren't surfaced. Solutions aren't shared. There is no ubiquitous language to describe things, so confusion can abound even when different parts of an organization communicate.

Breaking down these silos and building bridges is always important to create solutions that both work and will be adopted.

In a large-scale archipelago organization, this is more true than ever. Now, you can have silos that are on completely different islands. Solutions are complicated, and you need “all hands on deck” to help create something that will be functional for everyone involved. So how do we make sure everyone’s domain knowledge gets brought to the table?

Finding Champions

Good news. If you have done some research with your internal users, you are on your way to ensuring you hear everyone’s voice. Each of those subsidiary groups is its own silo, and by bringing them to the table to talk, you’re helping to bridge those gaps.

You can do the same for silos of expertise: developers, designers, content writers (including that prolific professor who finds time to keep a blog up to date). While the organization’s workflow may encourage such silos, nothing is stopping you from reaching out between them, and (ideally) most people doing a job love talking about it.

Are you interested in what the CMS is capable of so that you can optimally design content for it? Reach out to a developer and get a walkthrough. Bring lots of questions. The reality is that they are probably just as frustrated with being silo’d as you are.

Frame it around wanting to make their life easier. Nobody likes being faced with solutions that someone else created which don’t bring your expertise and needs into play. If you are listening to them, people will generally be responsive to the work you are doing.

As you reach across silos, you will start to identify people who are just as interested in making working solutions as you are. These are people who are willing to be champions for your cause. Hold onto them for dear life. They will become your eyes, ears, and voice within their respective silos. Their motivations might not align with your own precisely, but that's fine.

In one project, an agency accepted the shared platform because it was 100% accessible. We wanted it accessible because we believe that accessibility is a human right. The agency wanted it to be accessible because they didn't want to be sued. Because of that common goal, they were willing to work on a solution.

At the same time, you need to be a champion for your champions within the groups you are involved in. Breaking down silos goes both ways. As this group of champions starts to elevate everyone's voice throughout the organization, the walls will crumble.

Collaboration on Difficult Problems

After you have your team of champions, collaborate with them on solutions to problems you couldn't have solved yourself. One common example is the development of a structured content model.

It's hard enough to design a content model that fits an organization's needs. When you are dealing with an archipelago, it becomes even more daunting. Any model you design must be broad enough to apply to multiple internal organizations, each of which has specific interests and priorities.

Finding commonalities is still important. You might identify shared content types like Faculty, Course, Degree, and Location. But you still have to allow for flexibility.

In reality, this means most content is going to end up as basic WYSIWYG page-building content. That means lots of unstructured content. How do you make sure this content doesn't become an unmaintainable mess?

In conjunction with developers and designers, you develop a set of guard-rails for the WYSIWYG editor. Make the "wrong way" hard and make the "right way" easiest. Some examples:

- Restricted photo placement and dimensions
- Embedding micro-content with a variety of options
- Advanced document management that makes it easy to use and list files

Breaking down silos is not easy or quick. Nevertheless, the benefits are immense. It enables everyone to craft better solutions for your users, and it increases the likelihood of your tools being adopted.

Verify Conclusions

As you build out these solutions, you want to keep communication open with your internal users to verify the solutions are working well. There are three angles you want to approach from.

Talk to a Broad Cross-Section of People

At this point, you've likely already identified people you want to run through solutions with via your user research, but we like to expand from there when we're putting forth possible solutions. Ensure you hear from:

- **Multiple attitudes.** Talk to your champions, but also talk to your die-hard critics. These are the people you will never please no matter what you do, and you can learn valuable things from them.
- Multiple roles. Talk to the people doing the work of entering content, not just their bosses or directors. Talk to admin staff. Talk to developers. Talk to designers and product managers. Talk to students. Talk to teachers.

Present Information in Multiple Forms

Different contexts can help trigger different responses to information. For example, a list of content types on paper is read differently than that same list on a CMS edit screen, which is read differently than how the page will render for the end-user.

Here are two ways we presented content types to users during different phases of a project.

On the left is an early draft of the content types and their relationships. On the right is a page that editors would interact with when going to create content.

These two presentations and the questions that went along with them garnered a lot of different insights into the key questions:

- Do these content types make sense?

- Can users figure out which ones are best to use for their use cases?

In an attempt to break away from “News” as a content type, which seemed a little too prescriptive for its various use cases, we attempted to rename it to “Update.” This referred to an update of any kind, which seemed more appropriate for how people used it.

In the first presentation, users seemed ok with this naming. However, when we presented the editorial screen, we immediately saw a pattern of users confused by the new name. They kept asking, “What is it we are updating?”

In the context of an editorial interface, users were reading the word as a verb instead of as a noun. Changing it back to “News” cleared up all of the confusion. Validating our solution in different contexts allowed us to spot this issue before it caused potential problems down the road.

Multiple Reviews

You need to be providing more than one chance to validate your solutions. Changes need to be re-verified, and while some of these modifications will appear to be small and minor, they can have a major impact.

The more times you can get things in front of users, the better your solutions will end up being in the end.

All of this verification and re-verification also helps you build bridges and break down silos (this work never really ends). The more people you talk to, the better chance you can identify additional champions that can help you down the road. The more you listen to and implement feedback, the more trust you build.

This all pays off with greater buy-in and acceptance as your project rolls out and, since many of your stakeholders will already have some familiarity with what you're doing, easier training.

Measure and Iterate

The purpose of a university website (or network of websites) is to get content delivered to users in a way that meets users' needs while accomplishing the goals of the organization. To achieve this purpose, you need to identify metrics and use analytics tools to help you measure and iterate as necessary.

However, in decentralized archipelagos, you have some different problems to deal with.

You need to measure not only what your external users are doing but also what your internal users are doing.

Content Measurement

One of the biggest problems is that you have less control over content quality. In some cases, you may not have enough leverage to force the subsidiaries to follow a style guide or use a specific voice. To help alleviate this, expand your scope of what it means to measure content success.

You need to measure beyond what your end users are browsing and reading.

Since you will be auditing content anyway, running that same content through an analysis tool can help you identify content that is, or is not, meeting your guidelines. Using something like URL Profiler, you can measure reading time, grade level, sentiment analysis, and more.

And don't forget non-digital metrics. How many calls are coming into your call center? What are the most common topics and questions? Many of your subsidiary groups will have information coming in from non-digital sources. Find it. Collect it. Bring it to the table.

The most important thing is to identify the information you need to collect to verify whether you are meeting goals or not. It's easy to get lost in vanity metrics that look good but don't mean anything.

Would you trade a 10% drop in page views for a 10% increase in student applications? Of course. That's not to say page views are unimportant, but make sure you can tie measurements back to goals.

Combine and Analyze

Now you can bring this qualitative data to play alongside your web analytics. You can combine things in interesting ways that can often help you verify goals better than basic analytics would allow.

Here are some example questions you could start asking:

- What is the relationship between time on page and time to read? If something has a 2 minute read time but a 20 second time average time on the page, that could indicate a problem.
- What is the relationship between readability and page views? Are users

spending less time on content written at a higher page level?

- Do departments whose content averages a higher grade level get more support requests?

Answering these questions, and solving these problems, may require breaking down silos and developing some champions, but the dividends for you and your users will be massive.

Socialize

As you expand your view of what analytics are and how you're going to bring them together, socialize new priorities throughout the rest of the organization. A great time to start doing this is during the audit process.

As you meet with subsidiary organizations, bring this data to the table. Discuss how it can help make decisions about what content to keep, what content to kill, and what content to combine. Getting stakeholders used to this data now will help you have more success down the road.

You can also socialize these metrics by adding measurements to the content authoring process. In the past, we have worked with development and UX teams to design a way for authors to see their reading time and grade level as they entered content. The whole experience now highlights the importance of the data and keeps it top of mind.

Many subsidiary teams lack data and context to understand how some metrics matter, so socializing it throughout the organization can help reframe their thinking.

Aggregate and Compare

Aggregate the collected data into dashboards that can be sorted and examined. Aggregation is the most powerful thing you can do. You can have per-site dashboards for prioritizing certain improvements, but when you aggregate them to a network-wide dashboard, critical insights can start to bubble to the top.

You can see not just the data but trends. Where are improvements happening, and where are things backsliding? Which sites have the most accessibility issues?

Being able to divide and aggregate this qualitative and quantitative information gives you the tools you need to create action plans and figure out which subsidiaries need the most attention and help.

An Irresistible Carrot

This is where things start to come together. All of the techniques we have talked about coalesce into this point.

Having all of this aggregated data brought to bear against analytics, you can have real data on the impact of bad content and subpar design. You can surface these insights to leadership in a way that is difficult to ignore.

If your umbrella organization can also solve these problems, you have a really delicious-looking carrot.

Conclusions

In most projects, your goal is not to change the world. The vast majority of the problems you encounter in archipelago projects are organizational and political, which are outside of the official scope. Cultures can take decades to change.

But you can move the needle forward wherever it's possible, even if it's just a couple of inches here and there. Next thing you know, you've moved a foot, then a yard, then a mile.

Do what you can, figure out how to solve problems in a way that meets everyone's needs, and don't give up.

For more information, please go to lullabot.com.

About Lullabot

Lullabot is an employee-owned strategy, design, and Drupal development company. As one of the first Drupal agencies, Lullabot is highly recognized for their body of work, authentic approach, and leadership in Drupal innovation, having contributed to more than 150 modules.

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