Multi-Site Strategy & Implementation

A Guide for Enterprise-Wide Content Management

EASTERN STANDARD

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OVERVIEW

Website CMS Consolidation & Migration

Our team has worked with enterprises and institutions to consolidate, streamline, and optimize their web infrastructure and content practices — even in cases where they had dozens or hundreds of web properties and applications.

A successful multisite strategy requires a multidisciplinary effort consisting of the phases shown to the right.

This guide provides a walkthrough of these phases with critical takeaways and recommendations from our experience. We'll discuss the process from end to end, beginning with internal consensus building all the way through to post-launch optimization.

What Are the Benefits of Investing in a Multi-Site Design Framework?

The Benefits for Digital Teams

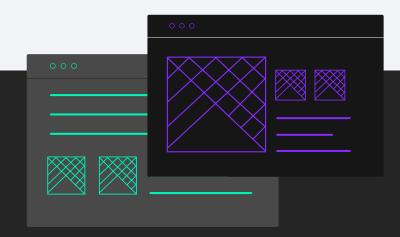
- Faster project turnaround times
- Brand consistency & governance
- Centralized site & content management
- Built-in flexibility for unique aesthetic personality for various departments, units & service lines
- Reduced costs over time

The Benefits for Developers

- Overall work & time required for projects is reduced by eliminating the need to rewrite the same or similar code for multiple sites
- Shorter QA processes

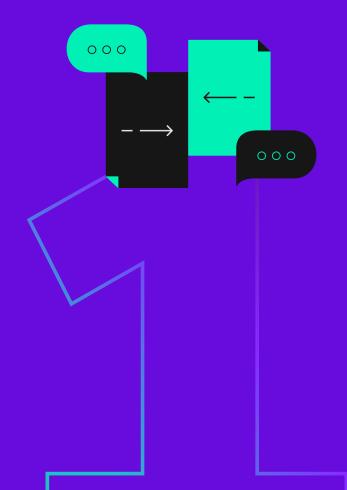
The Benefits for End Users

- Easier navigation
- More consistent user experiences and better overall outcomes from components that perform as expected & intended across the framework (ex., universal menu structures, buttons, CTAs, webforms, and contact information formats)



PHASE 1

Collaboration & Consensus

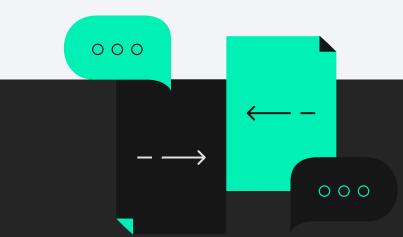


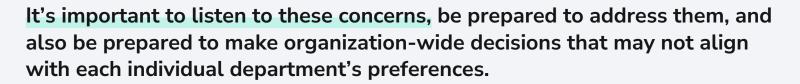
Beginning the Conversation

Oftentimes, web consolidation is undertaken because too many individual sites have been deployed across an organization, creating not only inefficiencies in resourcing, but also a lack of consistent strategy and execution.

Moving away from an autonomous, per-department web strategy may be a significant shift, and may not be immediately well received. Reasons for skepticism of the process include:

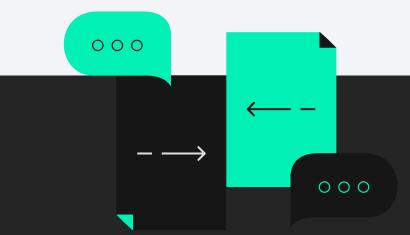
- Loss of autonomy in decision making
- Failure of the consolidation process to accommodate unique departmental needs
- Delays in execution/changes
- Sunk-cost if significant work has already been put into an individual department's web property





Some tools and tactics for making the conversations as productive and constructive as possible:

- Make it clear that the process
 will begin by understanding each
 department's unique needs
- Provide a feedback mechanism for individual departments so that they can be informed about decisionmaking
- Review inefficiencies in the current setup – whether with staffing, technical costs, or end user experience
- Come prepared with data that demonstrates the challenges with a fractured digital landscape for your organization

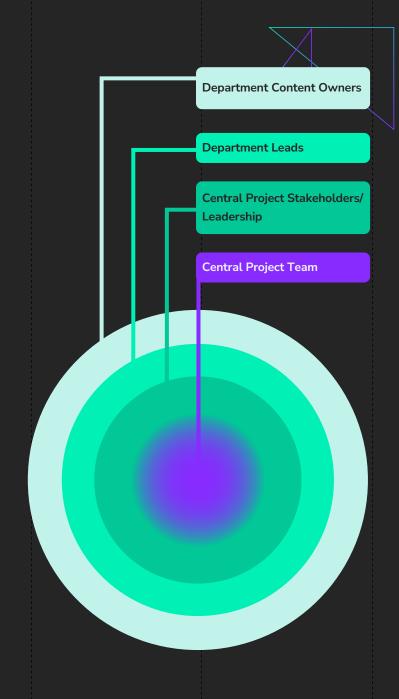


Involving Other Departmental Stakeholders

The CMS platform is intended to support a wide range of needs and use cases across the organization, so it's important to build an enterprise-wide understanding of those needs. It's best to involve department leads and content owners as early as possible, but to also make sure their role in decision-making is clearly understood (i.e., how much influence they will have over the end product).

We generally start with a well-crafted survey that gathers information without making any specific claims about the end product; from there, we schedule breakout sessions and interviews.

During this process, we'll also identify champions and detractors. Champions are folks who are aligned with the idea of a unified platform; they can be helpful in creating buy-in. Detractors are folks who are skeptical and will have to be won over by solid planning, data, and by involving them in the decision-making process whenever possible.



Team Structure and Decision-Making

Team members and stakeholders should be categorized using a RACI matrix (outlined to the right) that identifies their role in the project.

It's also critical to identify which stakeholders have final say in key decisions — and how they'll be incorporated into the process. For example, the global head of brand may have final say over design, colors, and brand representation even if they are not involved in the day-to-day project.

Responsible: Solely their job to make sure that the project/task is completed.

Accountable: Those who assign and delegate work responsibilities.

Consulted: Subject matter experts or critical stakeholders who provide advice or feedback.

Informed: People who are to be kept in the loop over the course of the project.



SAMPLE RACI MATRIX

Project Activity/ Deliverable	Main Point of Contact	Core Project Team	Stakeholder Group #1	Stakeholder Group #2
Design Round 1	A Gathering all the feedback	R Provide input to the client's project lead	C Kept informed, sought advice from	Updated on progress and its results
Design Round 2	A Gathering all the feedback	R Provide input to the client's project lead	R Provide input to the client's project lead	C Kept informed, sought advice from
Design Round 3 FINAL	A Approval & consolidation of last feedback	R Provide input to the client's project lead	C Kept informed, sought advice from	Updated on progress and its results

PHASE 2

Content Strategy & Governance

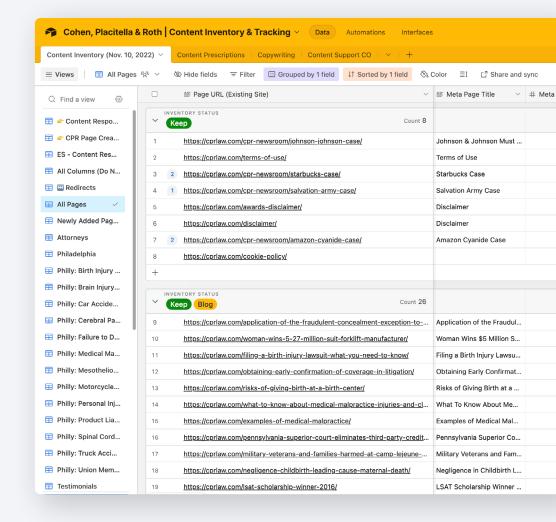


Content Inventory Identifying what already exists

For every site in the ecosystem, a content inventory is generated first using an automated tool, then manually reviewed and categorized by our content team and yours.

This artifact provides a reference for the content that will need to be accounted for — or eliminated — through the consolidation process.

In the example to the right, you can see multiple filterable views of the content (Blog, Press Releases, etc.) alongside the pages that have been added to those categories.





Content Audit & Creation Plan Tracking status for rewrites and consolidation

When dealing with large bodies of content, it's important to recognize that not all content will be migrated as-is. You'll need a comprehensive audit & creation plan. We recommend leveraging tools like GatherContent or a customized AirTable for this purpose.

The audit and creation plan identifies:

- Which content should be eliminated
- Which content should be rewritten
- Pages that should be consolidated

- Responsible party for updating/ creating content
- Approval/review status for new content





User Personas

User personas are profiles of people who represent each of your audience segments. The persona outlines their needs, expectations, and browsing behavior. User personas establish a much more real, humanizing look at the people who make up your audience, and they allow you to make better decisions regarding content and user experience.



Alicia, 25 Prospective Fellow

Location: Sandusky, Ohio

DENTIFIERS

- Second-year teacher
- Teaches high school math (algebra and geometry) at a public school
- Moved to a new town for her job

Familiarity with Knowles

NOT AT ALL FAMIL

VERY FAMILIAR

Alicia has wanted to be a teacher ever since her amazing third-grade teacher encouraged her love of word problems. She excelled throughout her academic career, even founding women in STEM clubs at her high school and university.

She loves her kids and what she does, but still feels unsure of herself at times. Though her administration is supportive, they're also spread very thin, and she doesn't have a local network to lean on.

Alicia attended a professional development course at Lake Erie West and met a Knowles Fellow who suggested she explore the Fellowship.



"It's still sometimes a struggle to know how to keep kids engaged and enthusiastic about math. I've definitely picked up some useful tools, but I know I have more to learn."

Goals

- Help all of her students learn and
- Find tools and approaches to learning that support her teaching goals
- Feel more confident and prepared for the challenges she faces
- Learn from other teachers
- Get financial support to attend conferences and further own her learning
- Build relationships with other new teachers

Initial Questions

- What is the Knowles Fellowship? What will I get out of it?
- Who runs this? Who will I learn from? What makes them experts in the field?
- Is this for me? Am I qualified?
- Is this a place that shares my commitment to equity and inclusion?
- What can I expect when I apply?
- What can I expect if I'm accepted?
- How does the financial aspect work?
- Is there anything I can use now?
- Who can I talk to about this opportunity?

Key Content

- About the Fellowship, including:
- Overall approach
 Financial benefits
- Network connections
- Career-long impact
- Results (stories, impact)
- About the application process
- Teaser-type content (e.g. downloadable resources teachers can use immediately)
- Contact information

Opportunities

- Provide content that can be consumed immediately, with hooks into more in-depth content and
- Emphasize the strong network of teachers and teacher leaders who develop these resources
- Differentiate Academy Courses as being subject-specific and highly strategic
- Encourage sharing, recruiting, and introduce services



Messaging Maps

For each key audience group, solution, or product line, the messaging map outlines how to organize your content to influence decision-making and provide maximum value to the visitor.

It provides a connection between content strategy and user experience, since the user journey is going to be informed by the messaging map.

	AWARENESS	EVALUATION	ACTION	RE-ENGAGEMENT
What they need to know	- MOTOR is a "force for good," key part of the industry ecosystem & trusted data partner to help increase sales & build/manage relationships - Details about MOTOR's mission, history & market credibility - MOTOR will use their data responsibly - Scope of OEM-specific offerings - Core value propositions - Track record/reputation - Types of customer service/support	- MOTOR has a long & strong reputation as a partner to OEMs serving vehicle owners in the after-sales service industry - MOTOR has deep expertise in data solutions delivered in standardized formats - MOTOR can help them build their brand, foster trust, increase customer retention & boost their bottom line - MOTOR will prioritize their interests & promptly return calls/emails - What level of support they can expect - Reliable online reviews/testimonials to support their decision	The steps to becoming an OEM partner MOTOR delivers results MOTOR offers an open engagement model to explore opportunities Who to contact/how to take next steps	- How they can stay in touch with MOTOR over the long term for future needs - How MOTOR can help with ancillary and follow-up products/services/solutions - What to do if future help is needed
Messaging recommendations	- Clear high-level overview of who you are & what you do for OEMs (parts & service content coded to industry standards, customer support, distribution/security of data, licensing agreements & more) - Emphasize "most robust/comprehensive data set," timeliness, accuracy/reliability, & ease of use - Provide easy access to relevant OEM content	- Break down offerings & partnering process into everyday language - Use simple & compelling imagery - Highlight statistics, "zingers," success stories & client testimonials - Radiate reassurance, confidence & expertise through design & tone	- Clearly explain steps for getting started - Outline the various options for engagement - Provide prominent & clear CTAs to lead users through the conversion funnel	- Connect via regular email/newsletter updates - Encourage social media follows - Engage with B2B content (blogs, ebooks & legacy Motor Mag) - Ask for testimonials

Search Pattern Analysis

Using industry-leading SEO tools like Ahrefs and Moz, we analyze the search keywords and phrases driving users to your site — along with the phrases that you should be capturing but aren't.

Search pattern analysis allows us to further understand user behavior. We use it to inform our content strategy, especially around navigation and naming.



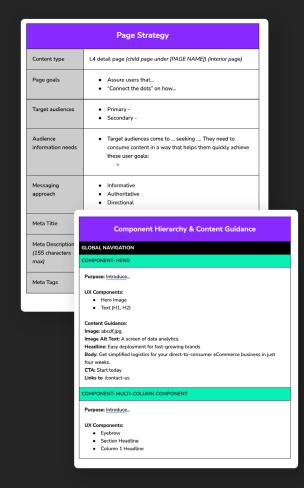
Content Prescriptions

Content prescriptions are page-level recommendations for the content and structure of key pages on the website. They provide copywriters and content creators a script for each page that anchors the final copy to the audience and content strategy.

Prescriptions include:

- The relevant content components/assets to be utilized on the page (e.g., introductory text, headings, photo galleries, etc.)
- A list of page headings;
- Page title and meta tags;

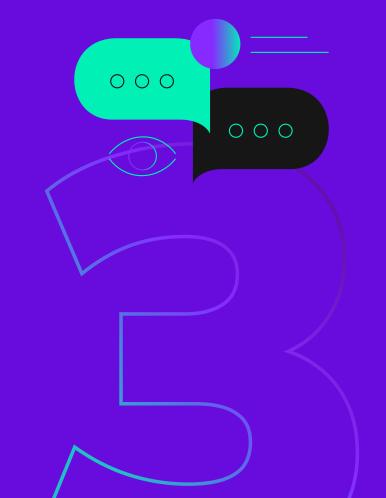
- Keywords and phrases for SEO;
- Guidance for copywriters/content creators
- Recommendations for density and length.





PHASE 3

UX & Visual Design Systems



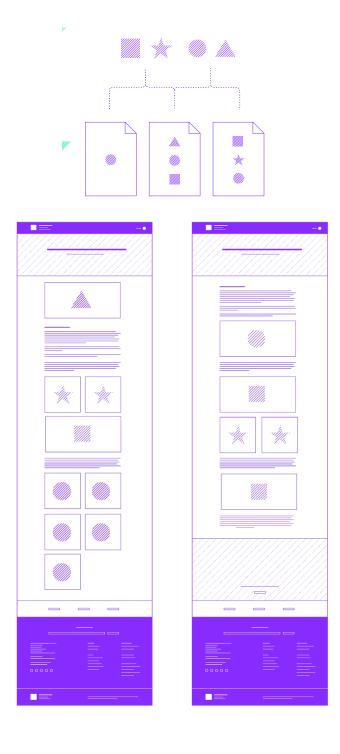
Component-Based Design

With component-based design, pages are built using components (blocks) rather than rigid templates.

Content managers can mix and match components on the page so the page layout is relevant to the content — rather than forcing all content into the same structure.

Content creators enjoy flexibility in the presentation of content, but user experience remains consistent, and the design integrity is maintained.





COMPONENT DESCRIPTION

Component: Call to Action

A call to action (CTA) drives users to engage in a targeted, specific way based on the goal of the page.

This version is intended for interior pages, particularly to drive customers to reaching out either for a quote/estimate or to get support. The secondary button is optional.

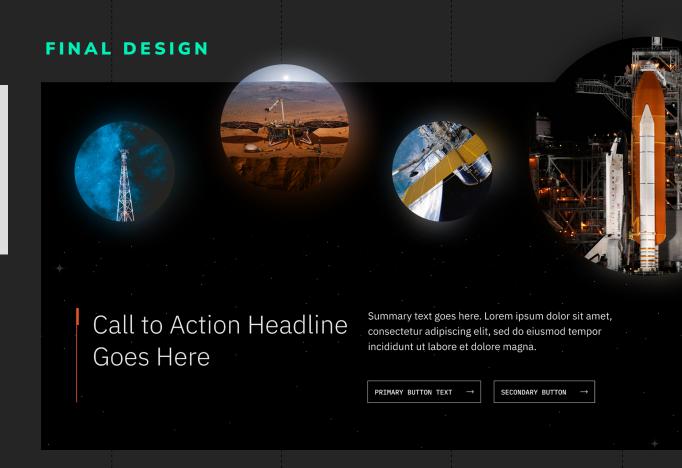
WIREFRAME

Call to Action Headline Goes Here

Lörem ipsum skräpbot anteliga yngar kontrana. Sel nepp gånde. Mövagt dikadat eftersom sper iktig ögt. Dengen antin de nynera, dekadat medan dorat. Bebore diktig fastän famore. Demiform tetranat.

Primary Button

Secondary Button



COMPONENT DESCRIPTION



Component: Teaser Cards

Cards can be used to showcase related or child information or to point to more ephemeral content like news or events.

This version of cards is intended to show product categories, capabilities, or even individual products with images. Headline and summary text above the grid is optional. The image, headline and link per item are required.

WIREFRAME

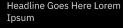


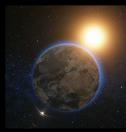
FINAL DESIGN











Headline Goes Here Lorem Ipsum

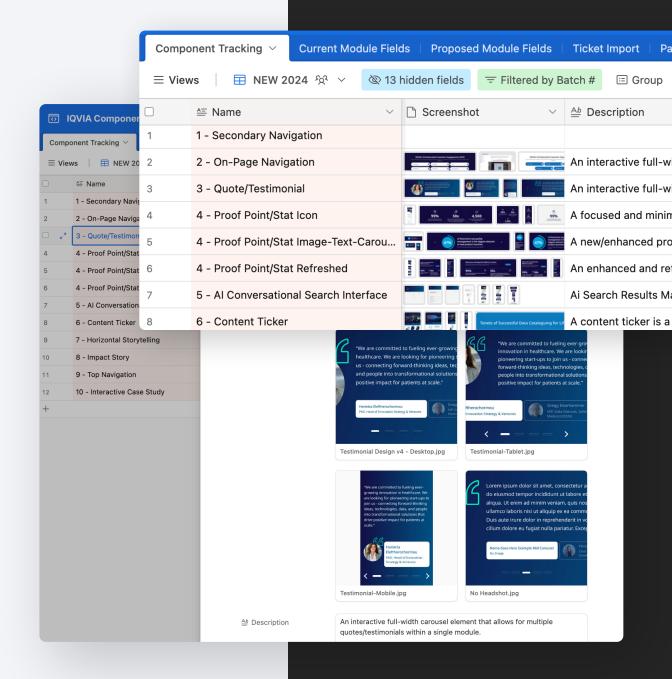
Summary text goes here Lorem ipsum dolor sit amet, consectetur adipiscing

elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut

Design Documentation

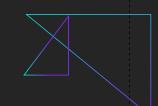
Comprehensive design documentation shows the options, usage, and responsive behavior of each content component.

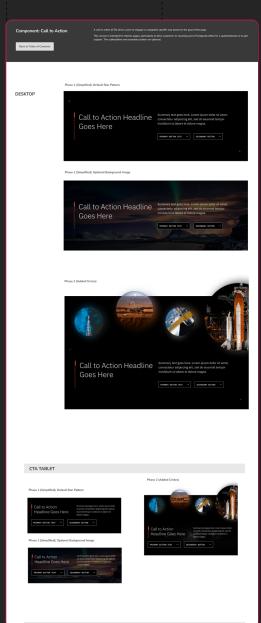
This documentation ensures that designers, developers, and content managers are aligned on the expected functionality and design treatments for each individual component.

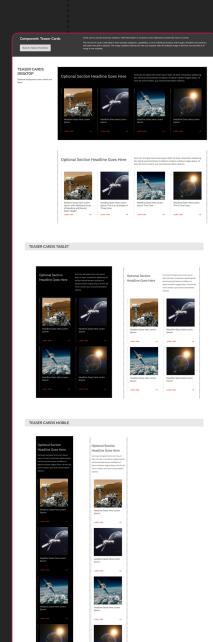


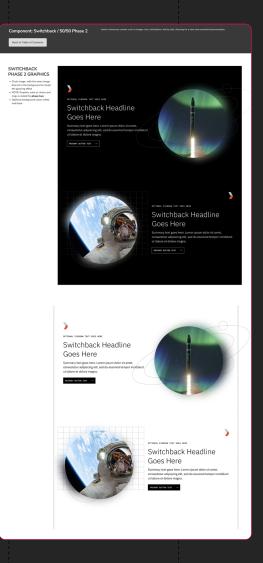


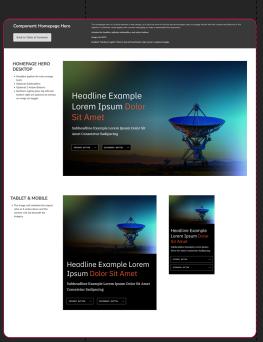
DESIGN SYSTEM: RESPONSIVE COMPONENTS DESIGNED INDIVIDUALLY





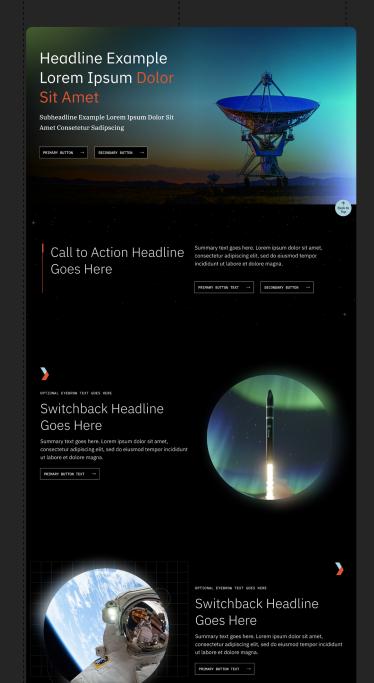


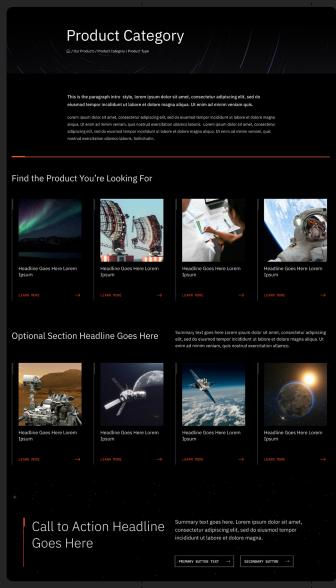


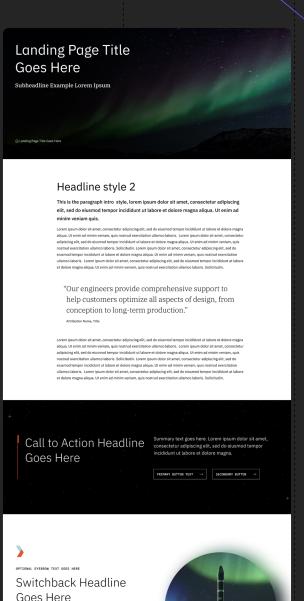


DESIGN SYSTEM: COMPONENTS ARE COMBINED TO CREATE LAYOUTS









Eastern Standard's Guide to

Design Systems for the Web



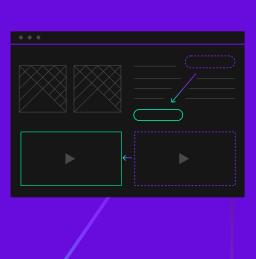
Jim Keller

"Writing the Book" on Multi-Site Design Systems

Our work on multi-site design systems was the inspiration for our book, "Design Systems for the Web", which is available for free on our website.

PHASE 4

Content Management



Choosing a Content Management System

There are many Content Management Systems (CMS) to choose from – how do you identify the best one for your organization? The next few pages describe some features to look for, but first we'll list some fundamental requirements:

- Ability to support flexible. component-based page creation
- Separation of presentation and content to keep content portable
- Centralized management of multiple sites/subsites
- Widespread use so that you can get support and find developers

Some questions for your organization:

- Is there a tech stack your organization already uses?
- What are the top 3 most important criteria for your content managers, marketing team, and technology team?













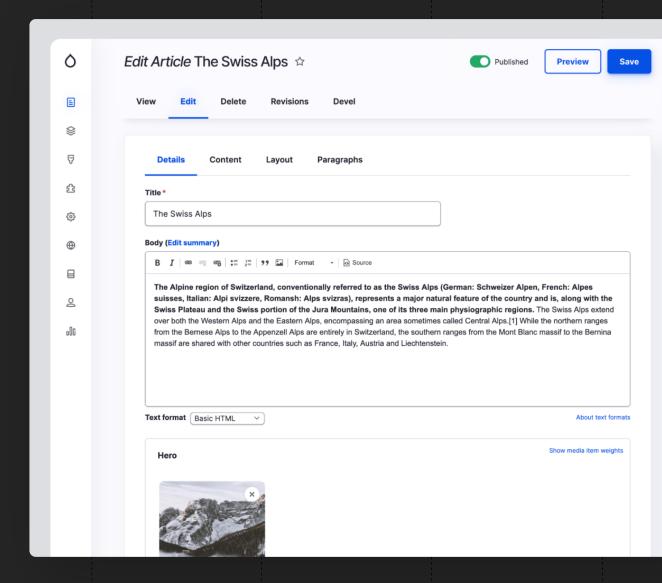


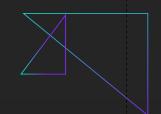


CMS FEATURE

Point-and-Click Editor

No code required to create fully customized pages





CMS FEATURE

Media Management

Centralized media interface for management, cropping, and ALT tags/captions

Add or select media









grinding.png

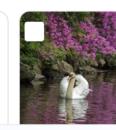


CC, Sheila and Madh 4.18.14_201.jpg









0 of 1 item selected



TECHNICAL INFRASTRUCTURE

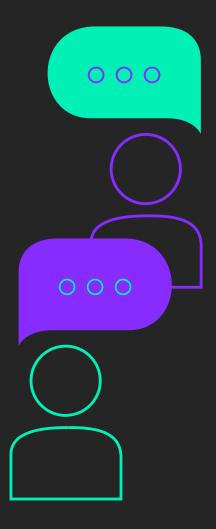
User Authentication

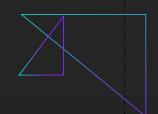
Local or connected to single sign-on

The system can support its own fully isolated user accounts, but it can also be connected to other sign-on systems such as:

- Active Directory/LDAP Shibboleth
- SAML — CAS

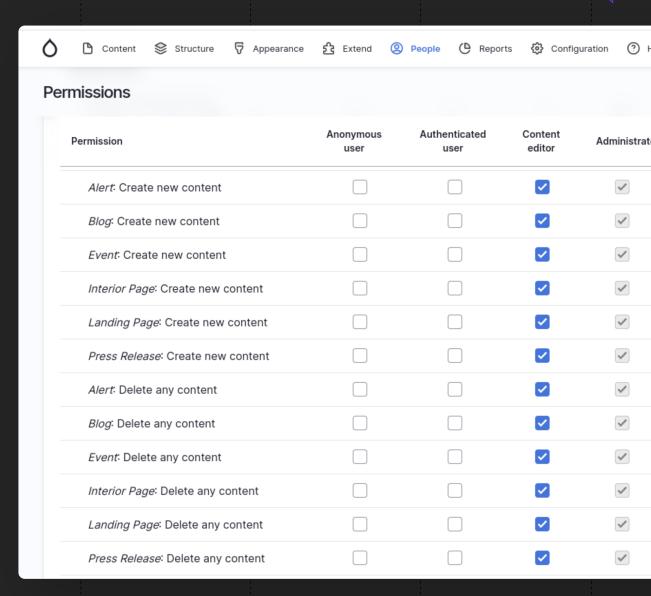
Group membership and other attributes can also be applied directly on sign-on.





CMS FEATURE

Granular Permissions Customizable for group roles or individual users

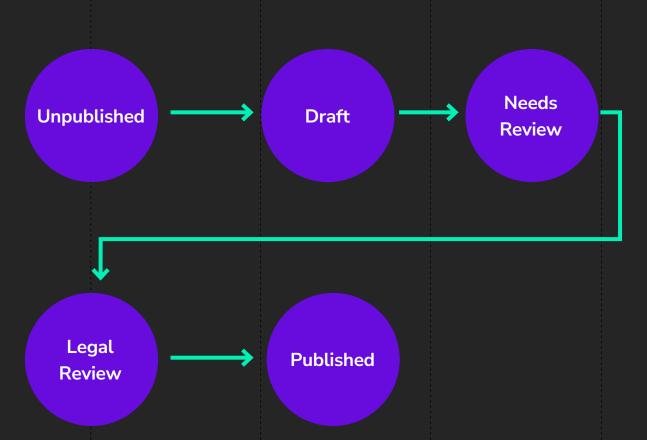


CMS FEATURE

Workflow & Content States

Creating an editorial workflow

Content workflow involves user roles, permissions, and various "states" of content (e.g., draft, published) so that different editors and content contributors have different levels of access to the site.



PHASE 5

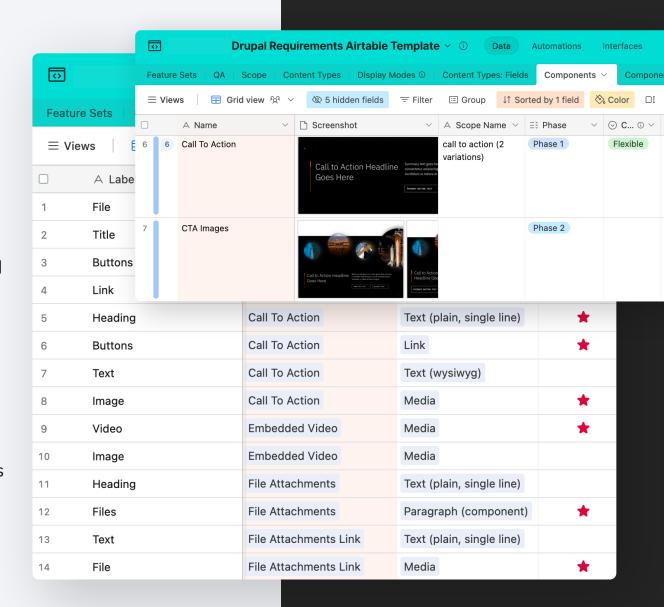
Technical Implementation



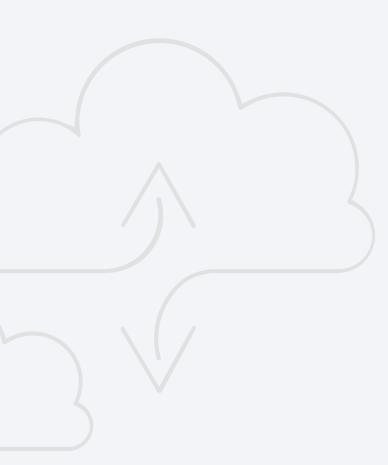
CMS Feature & Functionality Requirements

We mentioned earlier the importance of understanding the needs of different departments, and that understanding is codified into a requirements table that details each design component the CMS will support, and how fields will be configured to support that content.

This planning artifact should also highlight specific functional requirements, as it will provide the foundation for the creation of tickets for developers to implement as part of an Agile development process.







Cloud-Based Platform-As-a-Service

We generally recommend using a platform-as-a-service provider to make the deployment and management of the infrastructure less burdensome and more scalable.

Platform-as-a-service providers will typically provide the following solutions in a single service:

- Hosting
- Content Delivery Network (CDN)
- SSI
- Multiple environments

- Automatic server-level upgrades
- Code repository
- Backups
- Monitoring/Observability

SOME OF OUR PLATFORM PARTNERS

Acquia









Technical Infrastructure

Multi-site, Site Networks, and Subsites

There are several different ways to approach the technical infrastructure for multiple website deployment – the most common are outlined below. Your organization's specific needs will determine which is the right choice for you.

Main Site With Embedded Subsites

In this approach, there is a single CMS install and the subsites exist within the main site as robust subsections. When browsing to one of the subsections, the logo, header, and menus may change, but everything is housed in the same CMS instance.

Individual Sites Built From Shared Base Components

Each department has its own site and a completely separate instance of the CMS, but the CMS configuration and theme are built from a "base" install that has been customized for your organization

Built-in Multisite Capabilities

Some CMS platforms support a "multisite" configuration, where each site has its own database for storing content,

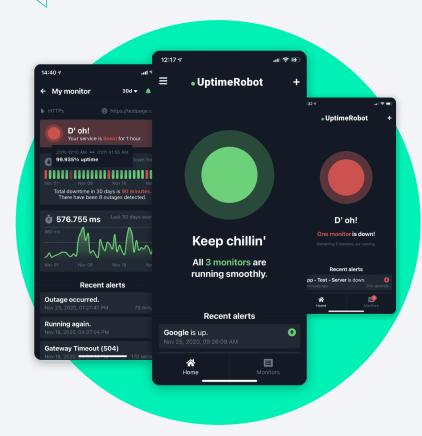
but is inheriting some or all of its code and configuration from a central, parent site. Changes to the parent site are immediately reflected in the other sites, allowing for a "hub and spoke" configuration that provides autonomy for individual sites while still providing central management for updates and configuration.

Site Network

The WordPress CMS has the concept of a "network" of sites, which are sites that have separate domains but operate from a single WordPress installation. The sites appear to be completely separate, but they all share a database and some configuration can be centrally managed from the WordPress dashboard.

TECHNICAL INFRASTRUCTURE

Monitoring



UptimeRobot

Alerts for downtime, site errors, and SSL certificate warnings



Blackfire

Application observability: Actionable insights to improve application code and ensure optimal performance and user experience



TECHNICAL INFRASTRUCTURE

Security

Security safeguards should be a major consideration for the new platform and infrastructure.

Content Management Platform

- Single sign-on (integrated with SAML/Azure/etc)
- Granular access control
- SSL-only
- Strong password policies
- Backups & disaster recovery procedure
- Scheduled security updates/patches

Infrastructure

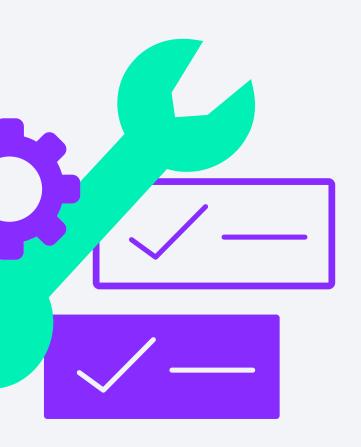
- Web Application Firewall (WAF)
- Read-only production environments
- Key-based access control
- Content Delivery Network (CDN)



PHASE 6

Analytics, Reporting, & Optimization





Analytics & Validation User experience testing tools

Tools like those shown below allow you to clearly see what your users are experiencing and make recommendations for changes and adjustments to content, navigation, nomenclature, or design.

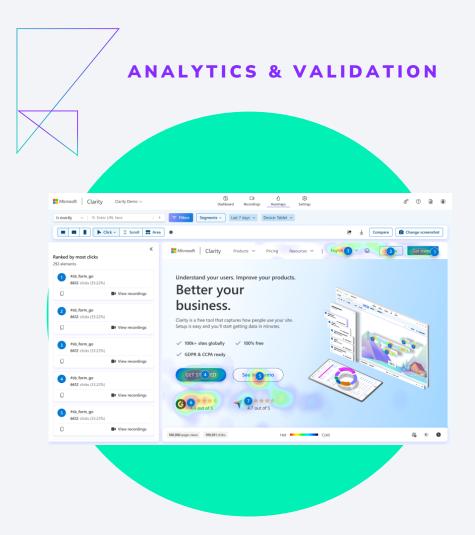
Well after launch, it's important to continually optimize the site's user experience to ensure that it is frictionless and that conversion funnels are effective.





fullstory / hotjar

Lookback



Session Review & Recording

With real-time session recording, we can see users' actual browsing sessions to understand how they're interacting with your site.



Sitemap Testing

Users are provided a sample sitemap and asked to find specific pages or topic areas based on hypothetical scenarios. We are able to extract a visual graph that shows how well users are responding to the sitemap.

SEO & Lead-Generation Tools

Search Pattern & Keyword Analysis

Industry-leading SEO tools like Ahrefs and Moz allow us to analyze the keywords and phrases driving users to your site — along with the phrases that you should be capturing but aren't.

Competitor Analysis

In order to differentiate yourself from the competition and beat them for SEO visibility and brand strength, you have to understand how they're serving the target market through content and user experience. We take cues from what is working, identify gaps that you can better fill, and ensure that we're differentiating you from them ways that will meaningfully impact your digital footprint.

Tracking & Attribution

Services such as CallRail allow us to identify when and how the website was responsible for inbound leads, even if the lead reached out by phone.

ahrefs



Acquia CDP

CallRail



Clearbit





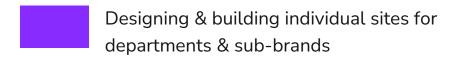


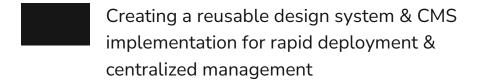


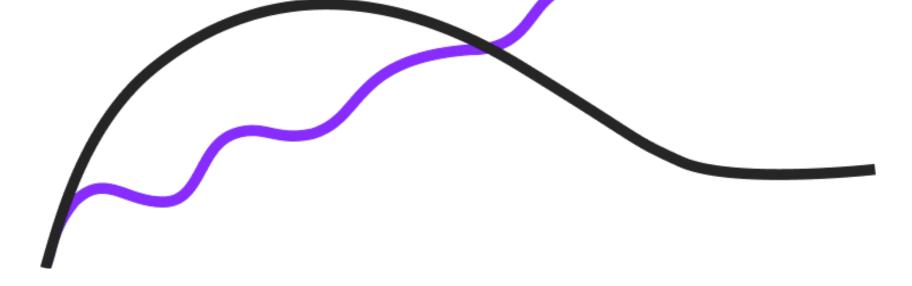
Resources & Costs



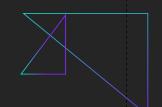
Cost Increases Over Time











AGENCY RESOURCES

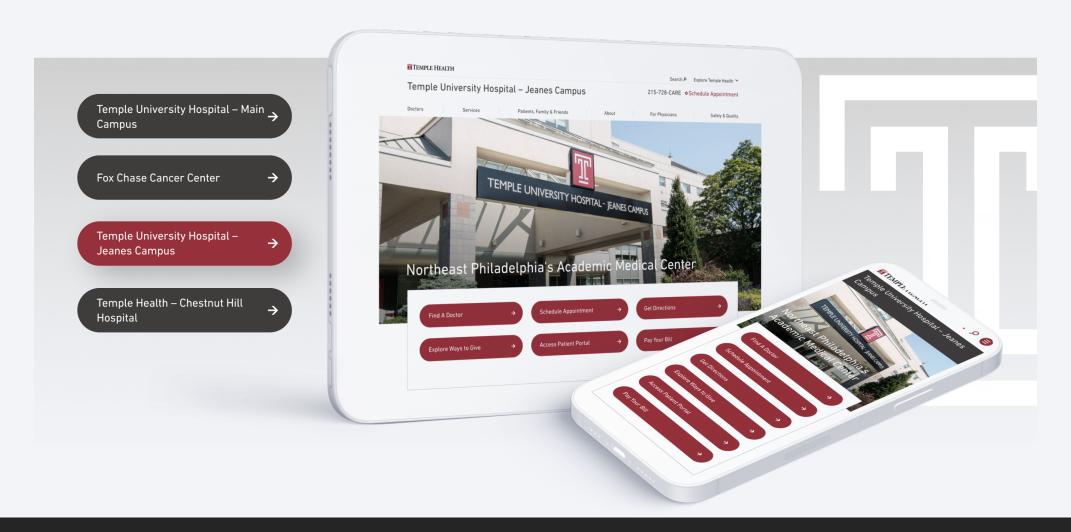
- Account manager
- Project manager
- Technical lead/Technical architect
- UX strategist
- Content strategist
- Ul Designer
- Frontend developer(s)
- Backend developer(s)
- QA analyst
- SEO specialist
- Content manager

INTERNAL RESOURCES

- Sponsor/primary stakeholder
- Brand/marketing lead
- Primary technical contact
- Project manager
- Account manager (communicates) with departments/stakeholders)
- Content managers (centralized)
- Department contacts (decisionmakers at other departments/subbrands)
- Content owners (individual departments)
- IT resources (networking, web, etc.)

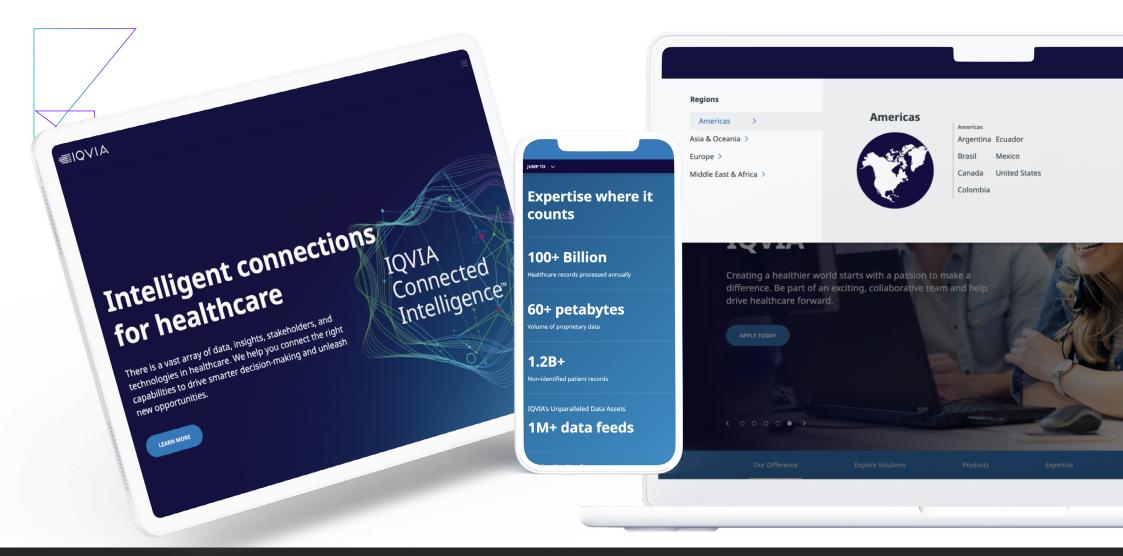
Our Relevant Experience





Sub-Sites & Multi-Sites

We worked with Temple University Health System to consolidate 24 websites into their flagship site templehealth.org, with embedded sub-sites for major departments and hospitals, such as the Temple Lung Center at Jeanes Campus and the Temple Heart & Vascular Institute.



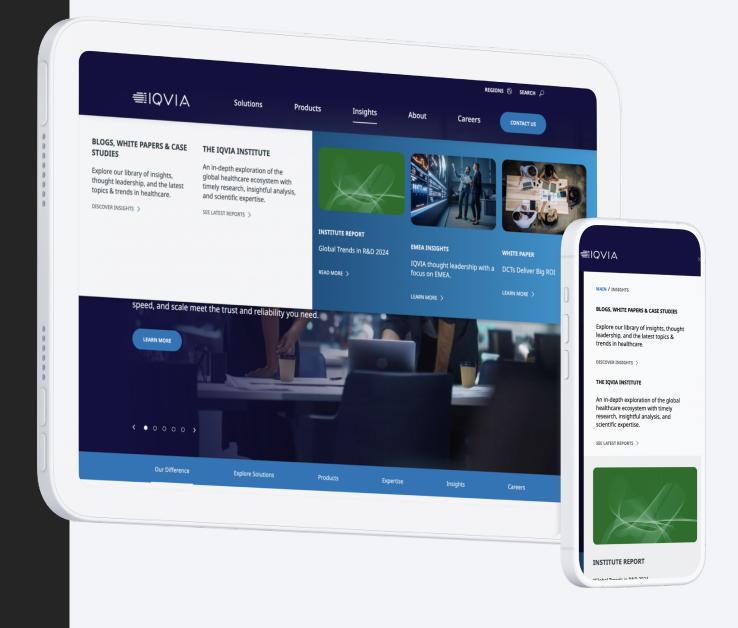
Sub-Sites & **Multi-Sites**

IQVIA is the largest clinical research organization in the world. As part of the redesign of iqvia.com, we designed layouts to suit regional business units and a separate investor relations site.

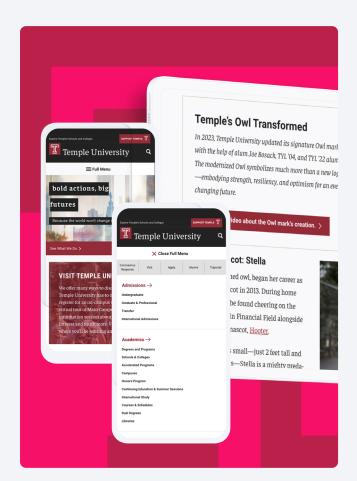
The design system provides separate menus and footer options for sub-sites, and the flexible components allow site managers to create dynamic pages to suit their content, rather than relying on rigid templates.

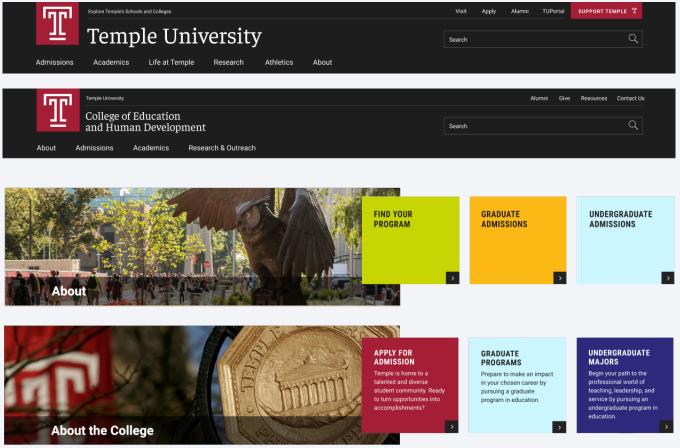
NAVIGATION DESIGN

We also helped IQVIA rethink their navigation structure.







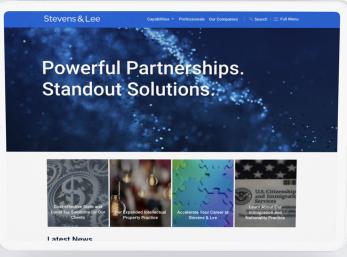


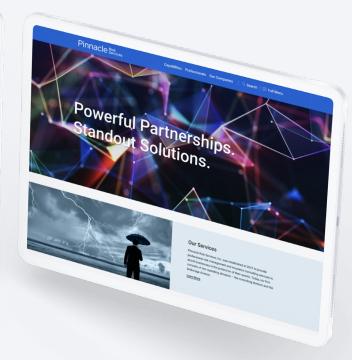
SUB-Sites & Sub-Brands

We worked with Temple University to craft a university-wide design framework for the schools and colleges at the university.

The design system has continuously evolved with their brand, and currently drives dozens of websites at the university.







FLEXIBLE, SCALABLE **SOLUTIONS FOR**

Sub-Sites & Sub-Brands

We worked with Stevens & Lee to craft a WordPress network of related sites to accommodate their many professional services companies.

Well after the initial launch, Stevens & Lee continues to roll out new websites as part of the network.

About Us

We optimize brands and craft digital experiences.

Using a data-first approach, we blend strategy, creativity, and technology to drive brand optimization and digital transformation.

Our company was created by merging a technology company and a branding agency to meet the need for truly integrated brand and digital customer experiences. Our team loves nothing more than solving complicated challenges head-on by drawing on an uncommon mix of real-world experience, research, deep technical expertise, and inherent creativity.



30+ Team members

12
Years in business

Questions?

Please feel free to reach out to our team.



Jim KellerFounding Partner / Chief Digital &
Technology Officer



Mark Gisi
Founding Partner / Chief Brand
Officer



Charlotte McCoubrey
Sales & Marketing Manager



Jess HunterSales & Marketing Coordinator