Whitepaper

The Iterative Approach to Sitecore Website Redesigns

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A full website redesign can be an expensive and daunting task. Before jumping in we recommend assessing whether your website could be improved incrementally over time.

To confirm if an iterative redesign is right for you, you’ll need to answer the following questions: Is your Sitecore architecture foundationally sound? Can it be updated with the latest technologies? Is the UX up to date and does it follow best practices? Are your brand, audience, products and services aligned?

If you answered “yes” to these questions, you may be able to build your site iteratively without a complete overhaul. If “no,” there is a strong argument for a complete redesign but proceed with caution.

Complete website redesigns have high risks with no guarantee of performance metrics at time of launch. They have long timelines that are at risk to a change-in-course due to new trends, reacting to what the competition is doing and never-ending management feedback that ultimately leads to change orders and even longer timelines. If you need to jump in and take the full redesign plunge, please keep reading. The principles of the iterative approach still apply. You’ll want to design and build for modularity so that you can continually optimize the site and update it over time.

The iterative redesign process allows for real-time user feedback to ensure your website is meeting user needs on an ongoing basis.
Step One: UX and Website Capabilities Assessment

As a first step, we recommend developing a strategy that embraces iterative growth to continually hit short-term goals while you’re chipping away at your long-term plan. The foundation of the strategy should be rooted in your user’s goals, your business objectives and how success is measured. Designers, strategists, and technologists should work together to do quantitative and qualitative research. They should be digging into analytics, interviewing users and developing a plan to test and optimize the new designs to incrementally improve conversions.

Since a key driver for a redesign is to modernize the user experience, you’ll need to identify and articulate where the issues lie within your layouts, components, navigation, and global elements. These issues will range from usability problems, to accessibility, to simply needing updates to catch up on current trends. We recommend working with a UX team who has the expertise of extracting relevant data and combining them with UX best-practices to advise on the issues and the ramifications of each change.

Advantages of the Iterative Redesign Process

- Allowing for real-time user feedback to ensure that your website is meeting user needs on an ongoing basis.
- It builds stronger relationships with your internal and external teams by showing an evolution of the website rather than trying to rework a finished product in a vacuum.
- Boost morale, motivation, and gratification. An iterative approach provides client and agency teams certainty that their efforts are focused on adding value to users. They also see incremental progress, which is very motivating.
- Easier to incorporate “lessons learned” in the final product.
- It gives stakeholders better sight of progress at each iteration.
In Figure 1 below you’ll see a UX evaluation on a mock site design. In the later steps we take these findings and recommendations and explore how we can iteratively modernize this page with newly designed components and layout modifications.

**UX Assessment on Current Home Page**

Through data analysis, user testing and stakeholder interviews we assess the current website’s user experience, provide recommendations and assis with prioritizing iterative improvements.

**Product Features**

- **Easy Administration**
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- **Comprehensive Search**
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- **Social Media Integrations**
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- **Built-in SEO Tools**
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- May 24, 2019
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- May 15, 2019
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- May 11, 2019
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**Latest Events**

- June 12, 2019
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- June 25, 2019
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**Feature Blog Posts**

- May 5, 2019
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- May 5, 2019
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Data shows users do not browse by “search”. Make search less prominent and emphasize Login and Registration. Based on user data, re-orient navigation to be product focused. Users are having difficulty with navigation flyout menus. Consider a modern super nav drop-down menu. Users are not engaging with carousel. Static imagery does not communicate the breadth of the product line. Consider video running behind key value proposition message. Right column feels dated, widen layout for more immersive experience. Product features should be more visual and prominent.

Figure 1: A UX assessment includes an analytics review, user and stakeholder interviews and an evaluation of the current website’s experience by your design team.
Along with design and usability improvements, you’re likely looking to improve your website’s capabilities and add new features like robust search, personalization, marketing automation etc. Some features could be expensive and complicated so you’re going to need buy-in from your team members and stakeholders who all have different priorities and lots of opinions. At Hedgehog we use a method called the Hedgehog Capabilities Maturity Model (HCMM) which helps drive decision making around a website’s capabilities and the investment needed to reach our client’s goals.

### Hedgehog Capability Maturity Model

**CAPABILITY LEVELS: STORE FINDER EXAMPLE**

<table>
<thead>
<tr>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>LEVEL 4</th>
<th>LEVEL 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>Low Standard</td>
<td>High Standard</td>
<td>Leader</td>
<td>Best-in-Class</td>
</tr>
</tbody>
</table>

- **Level 1**
  - Minimum: Dedicated “Find a Store” search field, Location filter, Zip code or address, Responsive
- **Level 2**
  - Low Standard: Persistent filters, A-Z quick links, Filters based on user needs, Languages spoken filter
- **Level 3**
- **Level 4**
  - Leader: Multi-lingual, IP-based location finder, Store specific deals, Compare stores
- **Level 5**
  - Best-in-Class: Personalized results, Check inventory, Schedule delivery or appointment, Buy online, pick up at store

**MATURITY LEVEL TARGETS**

<table>
<thead>
<tr>
<th>Capability Area</th>
<th>Importance</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store finder</td>
<td>High</td>
<td>Actual</td>
<td>Target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coupons and deals</td>
<td>Med</td>
<td>Actual</td>
<td>Target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check out process</td>
<td>High</td>
<td>Actual</td>
<td>Target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile experience</td>
<td>Med</td>
<td>Actual</td>
<td>Target</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product finder</td>
<td>High</td>
<td>Actual</td>
<td></td>
<td>Target</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: In the Hedgehog Capability Maturity Model we look at specific capabilities and features within your market and sort them into 5 levels. Based on our Ranking Criteria research, we determine current levels and target level goals. Target goals are determined by level of effort, potential gains, budgets, and timeframes.
Step Two: Technical Assessments

It’s imperative that your Sitecore website can support modular components and incremental updates both technically and creatively. Sitecore’s extensible and modular architecture sets the stage for a component-based approach where we focus more on the page elements than we do on individual pages. Sitecore refers to components as “renderings” which are data-sourced, editable and can be used to build pages. With data-sourced components you’re ready for the essentials, such as:

- Iterative testing at the component level
- Personalization of content and design
- Analytics and reporting on A/B tests and personalization campaigns
- Flexibility within pages and templates
- Re-use of content within your main site or across a multi-tenant setup
- Tracking and measurement

Hedgehog Capability Maturity Model Outcomes

**Priority Agreements:** Together we list, prioritize, and agree on the types of capabilities and features needed over the course of six months to three years.

**Competitive Assessment:** We look at features found in the market for each capability area, sorting them into 5 tiers ranging from “Minimum” to “Best in Class.”

**Scoring:** We then look at the state of your current website and how it compares on the same 1-5 point scale. This provides a clear view of where you stand on specific capabilities compared to your desired goals.

**Closing the Gaps:** Armed with the target goal vs. where you are today, we work with our clients to close the most important gaps. Per the example below, we weigh importance of each capability vs. the level of effort, which includes time and budget.
When we begin organizing our components it’s really important to consider a way to identify each rendering, which is the inner HTML structure to a component or structuring element of a page. It may sound simple but taking these early steps towards a cohesive labeling system (also known as a Rendering Key) will improve communications between team members, help with issue tracking, and A/B or multivariate testing. It becomes the language your entire web team uses when discussing the website and referencing its parts.

If your website is built with the Sitecore Experience Accelerator (SXA), your renderings inherently support data sources and are already organized into groupings, such as Navigation, Page Content, and Social. The ability to group renderings together into a “Toolbox” is unique to SXA and is not available in Sitecore’s out-of-the-box installation. Therefore, unique naming is recommended when not using SXA.

**Systematic Approach to Rendering Names**

![Image of rendering named C1 - Content Card Boxed](image1)

![Image of rendering named C2 - Content Card Text and Image](image2)

![Image of rendering named C3 - Content Card 3 Column](image3)

![Image of renderings IG1 - Info Graphic 1, IG2 - Info Graphic 2, IG3 - Info Graphic 3, F1 - Login Form](image4)

Figure 3: Creating a systematic approach to naming your Renderings will help your team’s communication and work flow.
Step Three: Design Ideation and Design Systems

To begin the design phase, we recommend taking inventory to identify all components and organize them following the Rendering Key’s naming convention. This will give your design team a clear view of all the building blocks needed to create web pages and layouts. It also reveals all the visual inconsistencies and highlights underlying design issues that need to be corrected. You’ll then want to design a new home page “vision” and a few master templates based on the Step One assessments. These comps are used to articulate the potential grand vision and get all team members aligned on what the site can be and how components fit together (see Figure 4, mock-up example on the next page). Keep in mind, these high-level comps should represent the end goal that is only achieved after many small incremental changes and design experiments.

Once you have a stylistic direction for your components we begin populating and setting up the Design System. We define the Design System as a set of reusable UI components accompanied by design principles that define how content and web teams approach component design and online user experiences. This should be a living and breathing repository or document that evolves in tandem with your website and digital strategy.

The definition of a Design System is often debated and interchanged with Pattern Libraries, Style Guides or by the last designer you’ve spoken to. This article does a good job in comparing the Design System to Pattern Libraries and Style Guides. Additionally, there’s lots of great Design System that you can tap into from this guide.

We define the Design System as a set of reusable UI components accompanied by design principles that define how content and web teams approach component design.
Home Page Design Ideation

Based on UX assessments we create high-level designs for the new home page and other unique templates. The example below illustrates how we apply suggestions and recommendations to form a modern user experience that will require front-end development and minimal Sitecore back-end development.

We reworked the navigation so that all products are at the top level (formerly second level within the “Products” tab). Free Trial and Login are now prominent.

New super nav supports a featured product image. No longer a need for tertiary flyout menus.

Hero image is now a self running video that spans the full width of the browser.

“Product Features” component is now more prominent with impactful imagery and the ability to sort by Industry or Version.

We removed the right column to create an expansive edge-to-edge layout and to provide a better mobile experience.

Figure 4: Example home page ideation based on the UX assessment (page 3). These types of initial mock-ups are used to articulate the potential vision on the new experience and to align team members.
What Goes into a Design System?

Your design system should include a visual and textual listing of your components, following the Rendering Key naming convention, along with other aspects of your brand and design principles. Our design systems typically have:

**Brand Language**
Often pulled from a client’s branding guidelines and includes offline and online brand attributes such as color palettes, typography, approach to imagery, logos, marks, icons etc.

**Design Principles**
State your design principles within your design system to clearly communicate how design intersects with your company’s business goals and values. The design system is primarily about the granular parts, but this is where you speak to how the sum of those parts form the greater vision. Your design principles may also include your approach to typographical hierarchies, iconography, or photography.

**Design Guidelines**
Your design guidelines are the rules and specifications your web team follows when using the building blocks within the system to build pages. They guide the development of new components by including specifications for spatial relationships between components or the types of labels used for calls to action.

**UI Elements**
The UI elements are the smaller building blocks that can be grouped to form UI components. Also known as Atoms and Molecules, these are basic web elements like an input field, a button, HTML styles for labels, divider rules, etc.

**UI Components**
The UI components are the groupings of the UI elements that form your reusable components such as your hero carousel, news article listings or navigation mega menu.

**CSS/JS Modules**
Repository of all your front-end code. Many of your components will share the same CSS styles where modifications can be done once and get applied system wide.

**Layout Systems**
Understanding the different types of layouts permitted for desktop and mobile views and the grids used for building pages or templates.

**Templates**
Templates are created to provide the design direction for page layouts that set the theme for the website like your home page or reused often like a product detail or article template.

Your design system should be an accessible online repository and evolve with your website and digital strategy.
Step Four: Design Implementation

Now that you have your inventory of components and a deeper understanding of what will go into your design system, it’s time for your designers to roll up their sleeves and begin modernizing and improving the design of components. They need to keep sight of two primary goals of the iterative redesign:

- Redesign without a complete rewrite of all the underlying code and page structures
- Rapid iterative deployments to test your ideas and confirm positive outcomes

The design and development teams should determine the level of modifications needed to improve the UX while achieving the business goals. The extent of design and development modifications typically fall into three different levels of complexity (see box below).

Your chosen modification level will provide your designers with the structure and confines they need to design within. Don’t worry, designers are used to solving problems within strict limitations like budgets, tight timelines, or constrained formats. A great way to begin the component modifications is to tackle the complex components first. Included within the design of the complex components you’ll establish new styles for the more granular building blocks – this sets the stage for designing all elements and components for your design system and website.

Design Modification Levels

**Level 1**: CSS changes, minor front-end code rewrites and leveraging of existing content types, i.e., images, buttons, or icons. Requires very light Sitecore back-end development.

**Level 2**: Includes Level 1 modifications with moderate front-end code rewrites. May require some Sitecore back-end development.

**Level 3**: Includes Level 1 and 2 modifications with significant front-end code rewrites and moderate Sitecore back-end development for features that require data connections for example.
Levels of Design Modifications

Once the design handoff is complete, the development team will be responsible for implementing the design modifications in Sitecore. The example levels illustrated below provide a framework for discussing how these types of changes might be incorporated into Sitecore. Exactly how you implement the changes in Sitecore is directly informed by the types of modifications you’re making. In the example below we illustrate how a Product Feature list component, also know as a Rendering Key, can be modernized through different degrees of code and design modifications.

Original

Product Features
Easy Administration
Comprehensive Search
Social Media Integrations
Built-in SEO Tools

Level 1

Product Features
Easy Administration
Comprehensive Search
Social Media Integration
Built-in SEO Tools

Level 2

Product Features
Easy Administration
Built-in SEO Tools

Level 3

PRODUCT FEATURES
Easy Administration
Built-in SEO Tools

Figure 5: The example above illustrates how we redesign the Product Features component at different levels of modification.

Level 1: Modifications to both CSS and underlying HTML markup output to Sitecore. Since there is no new content introduced, this modification can be implemented by a front-end developer.

Level 2: Adding a scrolling carousel feature with the layout modifications will be primarily implemented by a front-end developer. A back-end Sitecore developer should be on hand to ensure that carousel components can be properly managed.

Level 3: This level of modification includes more structural changes and the addition of a new filtering feature to view product features by Industry and Version. This will require planning and involvement by a front-end and back-end developer.
Step Five: Implementation of Redesigned Components

This next step involves a handoff of the design to the front-end and back-end developers. Your developers should be collaborating with the design team throughout the design phase to catch any major blockers and flag design decisions that could affect the development timeline or budget. As designs are finalized you should begin prepping the source files (typically Sketch or Adobe Photoshop) with specifications including fonts, font sizes, colors, opacity levels, interactivity, etc.

The Figure 5 on the previous page visualizes how we take the Product Features component and redesign it at different levels of modification. The level chosen may be determined by how much development time is required or by your testing methodology. For instance, as a first step you may test a Level 1 modification to see if adding imagery increases click-through before investing more time into the Product Features component.

Level 1

In the Level 1 example, the elements that make up Product Features have been structured into “cards” and rearranged from a vertical listing into a 2x2 grid. We rename this component “C1: Content Card 1 Column”. While it may be tempting to try to achieve a grid system by styling the existing markup, it is much better to modify the Sitecore component so that it outputs the precise markup that is required by the grid system. Unless there is new content being introduced, this type of modification can usually be implemented exclusively by a front-end developer as long as they are aware of which component to modify and have a basic understanding of ASP.NET’s Razor syntax or User Controls. If the site utilizes SXA, this change may not require any developer involvement at all. For example, a similar design can be achieved by inserting Promo renderings into the Splitter (Columns) component.

Your developers should be collaborating with the design team throughout the design phase to catch any major blockers and flag design decisions that could affect the development timeline or budget.
Level 2

In Level 2, referenced in Figure 5, we see that the Product Features (PF1) component is modified to a scrollable carousel and occupies all three columns of the layout. Because of their modularity, we can easily reposition the right rail components, NW: 1, CS: 1 and NW: 2., below the carousel. This type of added feature, with the layout modifications, may be a good match with SXA’s Carousel rendering. In any situation, it’s worth reviewing the functionality of existing components to see if they meet your needs.

In the event that custom development is required, it will primarily be done by a front-end developer. A back-end Sitecore developer should be on hand to ensure that the carousel components can be managed properly by a website editor.

Level 3

In this level, we see further layout modifications with the addition of a new filtering feature. This will require planning by both front-end and back-end developers. Once again, before diving into development, it’s worth reviewing your existing set of components for any functionality overlap. For example, SXA’s search and filter components may be configured to meet your design and functionality requirements.

Since the changes in Level 3 are significant, the developers may decide to create an entirely new Sitecore component, leaving the existing one behind. On the surface, creating a Sitecore component may seem like a trivial task, however, there are many considerations that require close collaboration between designers, writers, content authors, and developers.

Sitecore Component Considerations

- Reusability
- Reuse, Create or Extend Templates
- Content Validations and Constraints
- Multilingual Support
- Responsiveness
- Performance
- Caching Strategy
- Security
- Experience Editor Support
- Variant Support (SXA)
- Part of a Partial Design (SXA)
Step Six: Rolling Out Iterative Designs

You’re now ready to execute the testing plan you developed in Step One and roll out the website iterations incrementally. Do not assume newly designed components will improve your conversions because they look better; test the effectiveness of your new designs against your current website or A/B test variants of the new components against each other. Throughout this process it is important to adhere your design system so that your website has continuity and feels systematically put together. This will retain the trust needed from your audience as you continually make the iterative improvements towards achieving your goals. For more on testing please see our blog, Optimize It: Website Testing Techniques.

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About Hedgehog

Hedgehog is a full service digital consultancy leveraging deep technical expertise to deliver sophisticated web experiences. A multidisciplinary solutions firm focusing on Sitecore, Drupal, and Magento, Hedgehog offers strategy, design, consulting and technology services. With vertical expertise in e-commerce, travel and hospitality, manufacturing, media and healthcare Hedgehog draws on a wide range of experience to solve challenging business problems. Our success is rooted in our philosophy of pragmatism, taking the long view and putting clients first.

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