

A man with a beard and glasses is looking at a laptop screen. The image is dark and moody, with the man's face partially visible on the right side. The laptop screen is on the left, showing some blurred content. The overall tone is professional and tech-oriented.

THE ULTIMATE GUIDE FOR **BEST PRACTICES** IN HIGH-TECH WEB DESIGN

High-Tech & Web Development

YOUR FIRST ONLINE IMPRESSION

Building an effective website for a high tech business requires bringing together many moving parts and highlighting the quality of your products. Much like building a house, a digital redesign requires experts in a number of fields to come together to produce a website that strategically meets your business goals and needs.

If you're considering a website redesign for your business, you'll find this in-depth guide informative about the best practices and tactics interactive agencies, like Boston Digital, use to develop award-winning, revenue-generating websites.

We'll cover the five key components that bring a website to life:

STRATEGY

USER EXPERIENCE

DESIGN

TECHNOLOGY

MARKETING



Strategy

Before you can begin to design or develop your website, you must start with the strategy. A well-crafted digital strategy involves framing the problem and identifying the high-level approach you'll take to solving it. While every organization's starting point may differ, the approach is always the same.



EVERY SUCCESSFUL PROJECT BEGINS WITH THOUGHTFUL RESEARCH

You wouldn't begin to sketch the blueprints of your house without knowing how many bedrooms, bathrooms, and closets you'll need, would you? You'd need to know who will live in the house. What needs do the residents have to get the most out of their home? For instance, are ramps required for someone with a wheelchair?

Likewise, thoughtful research is the foundation of a user-centric website design and an essential part of creating a **design that supports your site's users**. This research is about digging in and discovering what's important to your business and to your users.

"A well-crafted, digital strategy involves framing the problem and identifying the high-level approach you'll take to solving it."



THE DISCOVERY PROCESS

A good discovery is about examining your business, your audiences, your competitors, your search engine optimization opportunity, and more. During this stage, you'll want to conduct interviews with the key stakeholders in your business. The input you gather will shine a light on their unique perspectives and challenges.

Stakeholders also include the customers and potential customers visiting your site. The expectations these users have of your site, along with the goals they hope to achieve by visiting it, are the building blocks of your site's structure and design.

PERSONAS

To perfect the discovery stage, you need to develop personas that help define each target audience sector and his/her specific goals, needs, and tasks. To develop personas, you should compile a mix of personal, professional, and technical questions to better understand

who your ideal user is. From here, you will use these goals as tangible measurements of success or key performance indicators (KPIs). The KPIs you develop will help dictate the entire scope of the site and ensure you stick with your strategy.

Questions to ask during persona development:

1. How old are their audiences?
2. What are their professional backgrounds?
3. What reason(s) do they have for visiting your site?
4. What devices do they use to access the site (e.g., mobile, desktop, tablet, etc.)?



User Experience

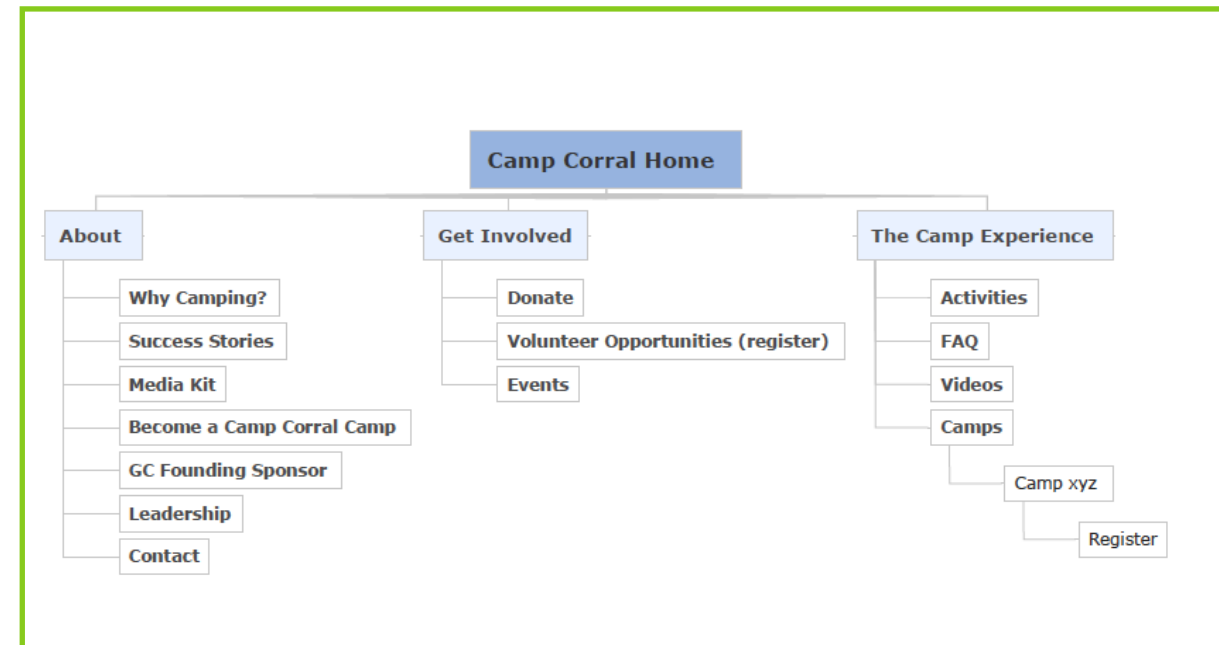
Once an architect identifies the needs and requirements of the house's residents, she can begin conceptualizing how the house will conform to their desires. The same holds true for the user experience (UX) process of a website.

At its basic, user experience centers on meeting the exact needs of your targeted users and creating a memorable and pleasing interactive experience. To do this, you must convert your strategic goals into executable, meaningful tactics and interactions that will create an enjoyable digital experience and give people what they want from your website.

CONTENT

It all begins with content—understanding who needs it, where they look for it, and how they think about it. Organizing your content (the words, paragraphs, headlines, and labels) is the job of an Information Architect and is a vital step in moving the process from theory to practice. To succeed, the UX team needs to articulate your design decisions in the form of taxonomy and deliver a sitemap that is a high-level vision of the site organization.

SITEMAP:



When creating your sitemap you should consider:

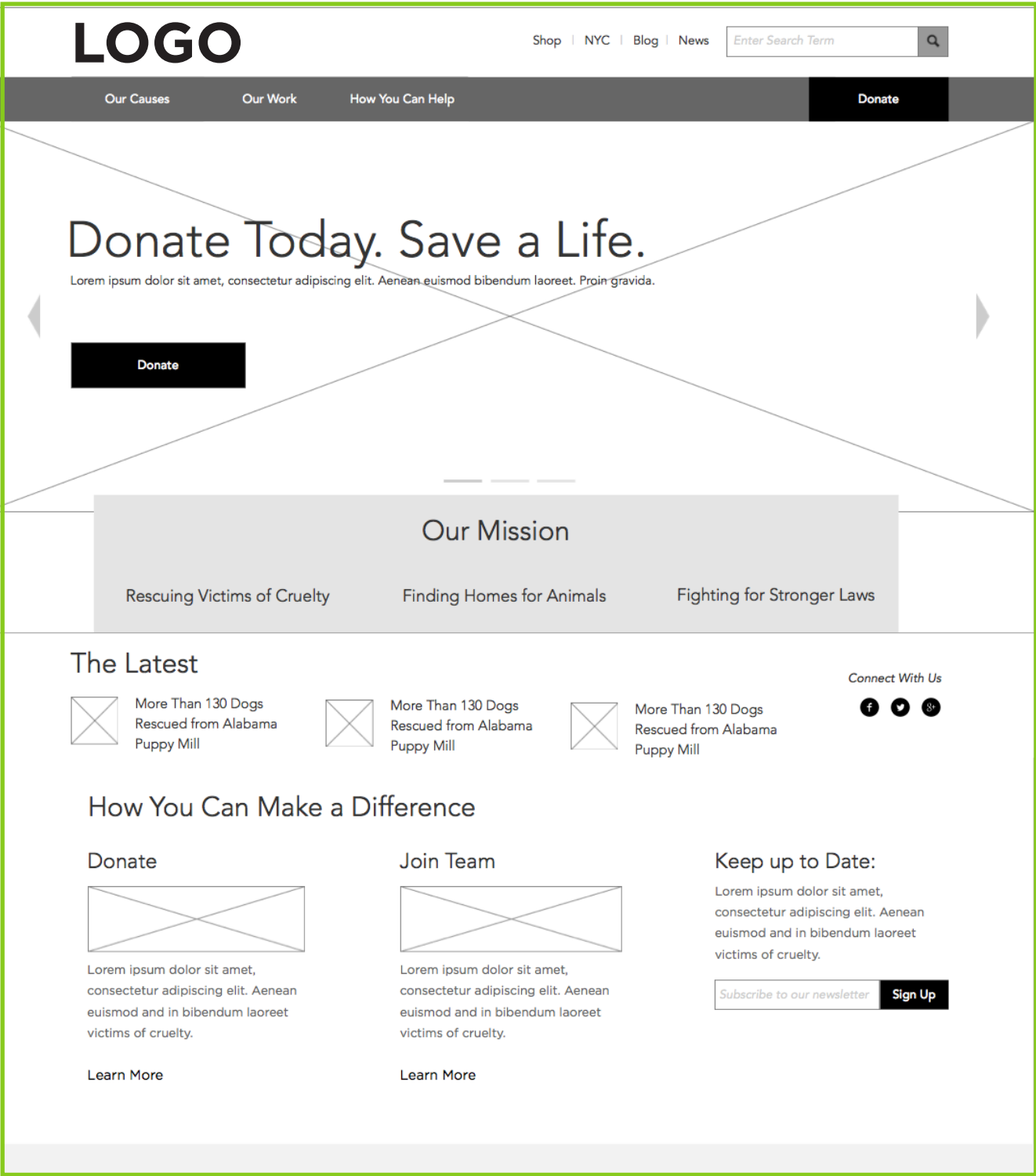
1. **Labels** — Will the user understand the navigation labels and how should the labels be positioned?
2. **Information Hierarchy** — Is your content of primary, secondary, or tertiary importance?
3. **Use cases** — Who is using the site and how will they perform a specific task?

THE WIREFRAME

Once the taxonomy, labels, hierarchy, and use cases are understood, the UX team will put these ingredients into wireframes—commonly referred to as “your website blueprint.” **Wireframes represent the website strategy without visual distraction.**

Wireframes can take many forms including:

- **Paper:** hand-drawn wireframes
- **Low Fidelity:** digital or hand-drawn wireframes, which consist of lines on a plain background and some labels
- **High Fidelity:** wireframes that begin to convey what your website will look like by using logos, color schemes, and other basic graphics
- **Clickable Prototypes:** semi-functional webpage layouts that offer a high-level preview of the actual site by giving the users the ability to click around



Example of a low fidelity wireframe

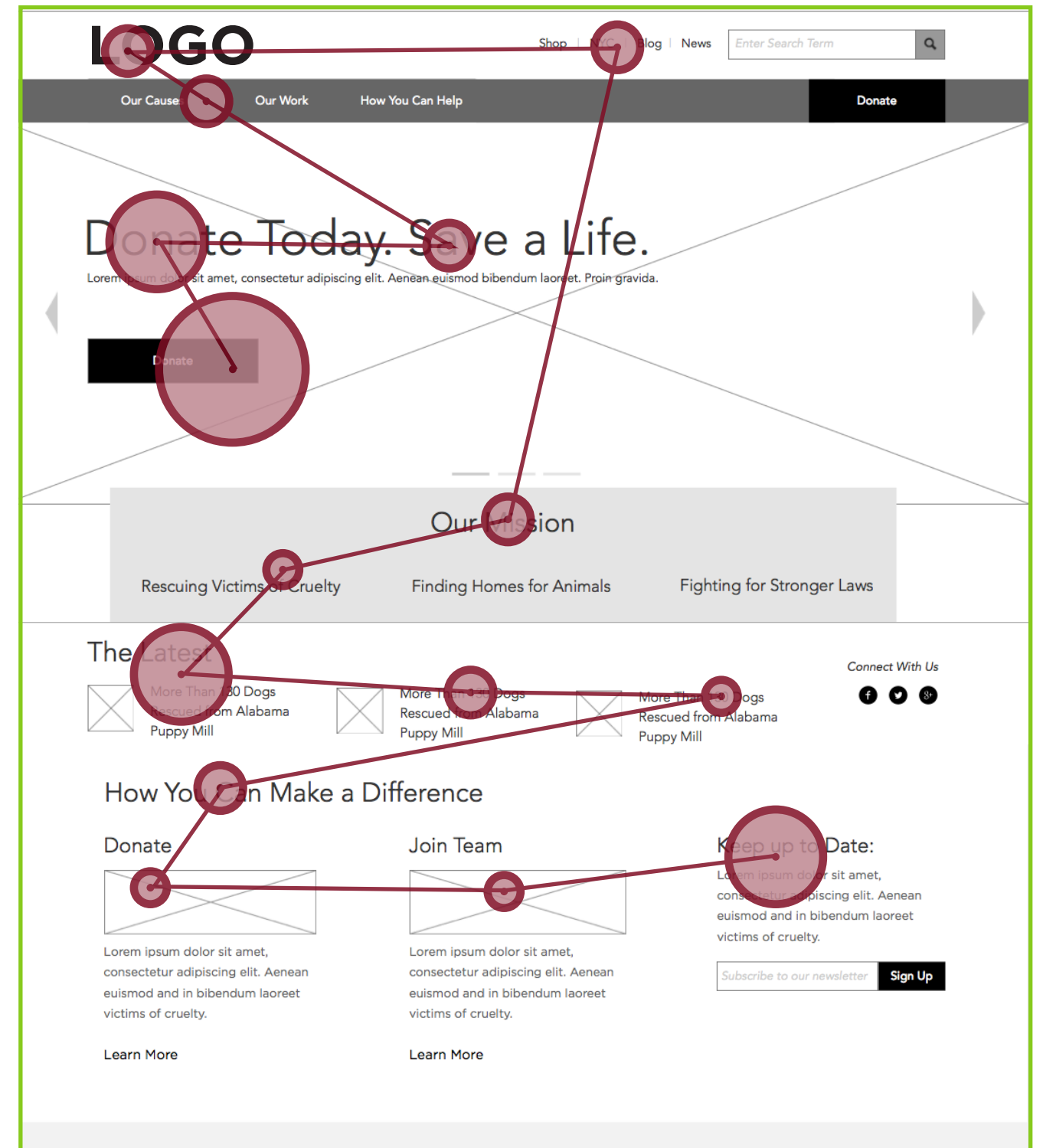
USABILITY TESTING

The testing of your wireframe is essential to the success of your site. Once finished, a sample of users who represent the main audience types of your business and website will view and work with your wireframes. To validate the wireframes, the test subjects will complete tasks that your site is designed to support.

What to look for during the testing session:

1. Did the user accomplish the task easily?
2. Did they understand the content and labels?
3. Was it easy to navigate?
4. Was content where it was expected to be or was information hard to find?
5. Were the calls to action in the right place?

The answers to these questions will help revise the prototype and refine the system as you move forward into visual design.



A scan path follows gaze and pupil data and allows you to track user engagement

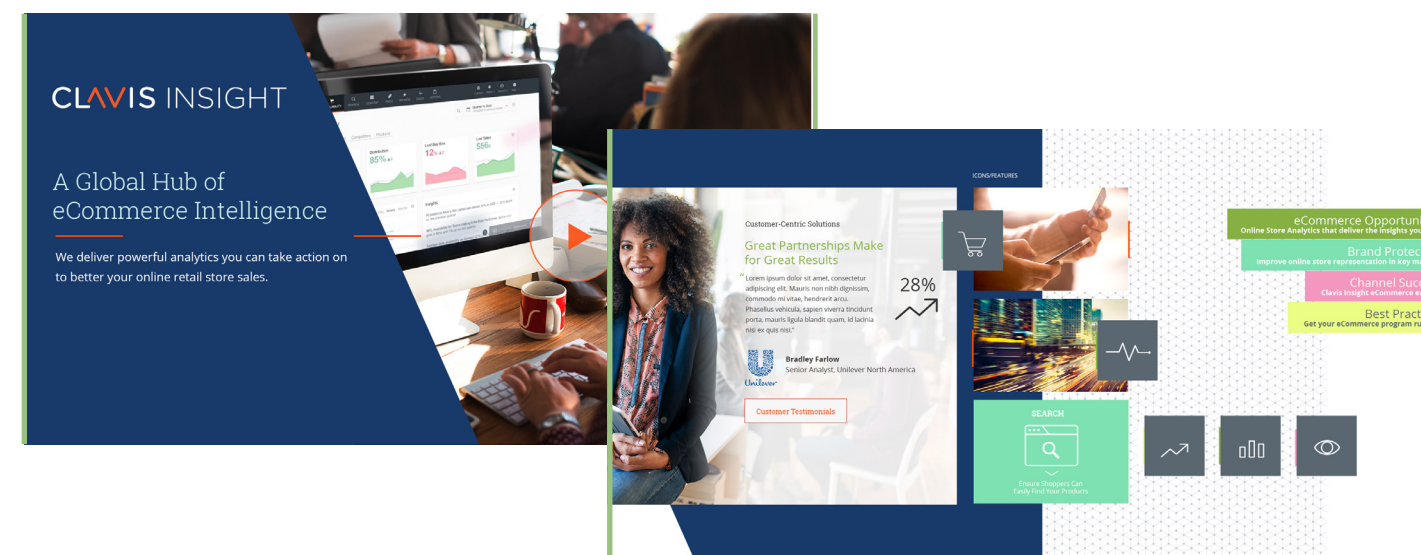
Design

The design phase is where you finally get to see your project come to life. Like building a small-scale model of your house, the design phase puts user experience concepts into tangible compositions to which your audience can relate.

MOOD BOARDS

Much in the way that an interior designer goes about redesigning a living room, the first step of the design stage is to create a mood board. **A mood board is a beautiful aggregate of your brand the logos, colors, fonts, photography, and icons all in one document.**

A mood board gives you the opportunity to see in advance the visual direction of your website rather than your web vendor revealing one large deliverable at the end of the project.



With a mood board, you can give immediate feedback on the overall look and feel of your site before a web designer wanders down the wrong path. Once you sign off on the mood board, the web designers can then start on the homepage design and any other key pages.

RESPONSIVE DESIGN

Once visual comps are approved, your web designer will work with a front-end developer to discuss responsive web design (RWD) layouts. Responsive web design is the concept of designing and developing a website with flexible layouts that respond (hence the name) to the device your user is using at that moment.

Your web designer will help direct how your site should lay out depending on device. The UX team will want to realign at this point to make sure users always get the best experience regardless of the device.



Technology

Whether your website is ten pages or ten thousand pages, selecting the proper content management system (CMS) is a key component to ensuring your website's success. The CMS acts as the backbone of your site. Using our house metaphor, the CMS is analogous to the plumbing, electricity, air conditioner, heating, and insulation.

For your website, a CMS will provide you simple tools such as creating, modifying, and publishing content, but can also provide powerful marketing/sales support including campaign development, analytics, workflows, and CRM (customer relationship management) integrations.

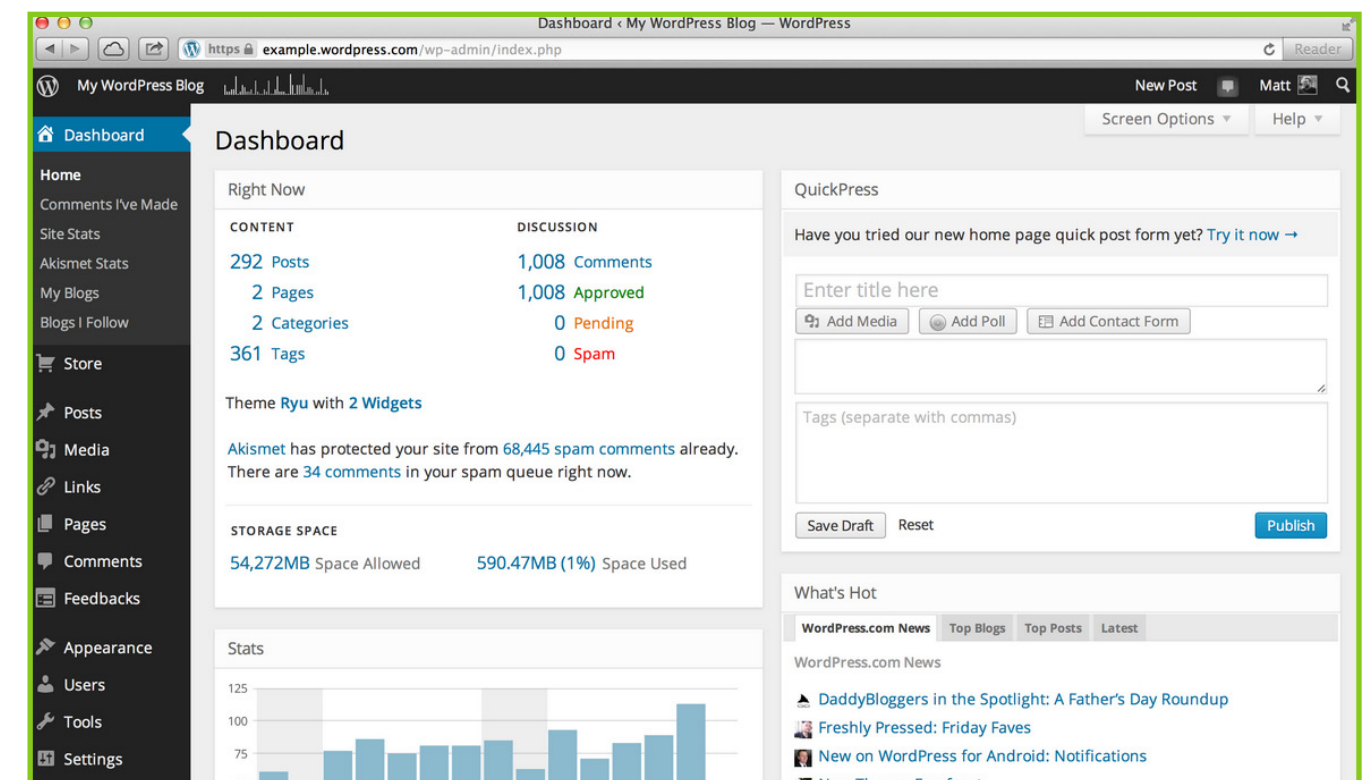
HOW TO CHOOSE A CMS

When evaluating which CMS to choose there are many factors to take into account, as each CMS comes with its own advantages and drawbacks. Some excel at ease of use while others are highly customizable. Choosing the right CMS can prevent unwanted issues and allow your organization to focus on delivering measurable results from your website.

Questions to ask yourself:

1. Do you require advanced marketing capabilities like A/B testing, email integration, and campaign creation?
2. Who will be maintaining your site and are they tech-savvy?
3. Do you need authorization to secure content?
4. How much website traffic do you expect monthly?

When you know the answers to these questions, you can better evaluate the myriad options you have to support your needs.





INTEGRATIONS

Integrating your website with third-party vendors or internal systems is a step that needs to be carefully evaluated. All integrations present different complexities, whether you're integrating a CRM or capturing a user's order information.

Spend time at the beginning of a project to determine the complexity of the integration and what steps need to be taken to properly integrate the website with the third-party API (application program interface) or internal system.

HOSTING

A good hosting plan is arguably the most important part of your website project. After all, without hosting, your new, beautiful website can't be accessed by anyone.

Infrastructural needs should be taken into account from the planning phase of your project through the launch of your website and even after the site's live.

Three common hosting solutions include:

1. Cloud hosting in a shared environment
2. Cloud hosting in a dedicated environment
3. Your own deployment of hosting servers

Each of the three listed above presents different challenges and considerations that need to be taken into account. Hosting is a key consideration that shouldn't be taken lightly. Selecting the right host and maintaining the environment will guarantee that your website will remain available for the public to view.



Marketing

No one shows up to a housewarming party if they never received an invitation. Likewise, all the UX, design, and technology in the world won't do any good if you can't drive and maintain traffic to your website. Depending on your business goals, different marketing tactics should be considered to best complement your overall strategy. While you can pursue a multitude of channels, we'll get started quickly by focusing on the search engine marketing (SEM) duo: **search engine optimization and paid search**.

SEARCH ENGINE OPTIMIZATION

Despite what some may have you believe, search engine optimization (SEO) does require investing time, money, and effort to do right and to do well. True SEO talent requires both a scientific, analytical mindset as well as creative, artful eye.

How does SEO work?

SEO begins and ends with the user. Users turn to search engines like Google or Bing to find information that matters to them. These search engines return results based on many factors (many of which are unknown to all but the search engines themselves). Some factors include **relevancy of results, user-friendliness, accuracy, and of course keywords**.

To optimize your site, an SEO expert will take all these factors into account and devise a strategy to help get your website's content found for the keywords that matter to your targeted audience. No tricks. No gimmicks. Just hard work, lots of analysis, and a user-focused approach.

An SEO expert will make recommendations including:

1. Title tags
2. H1s and H2s
3. Content
4. Meta descriptions
5. URLs
6. XML sitemaps

PAID SEARCH

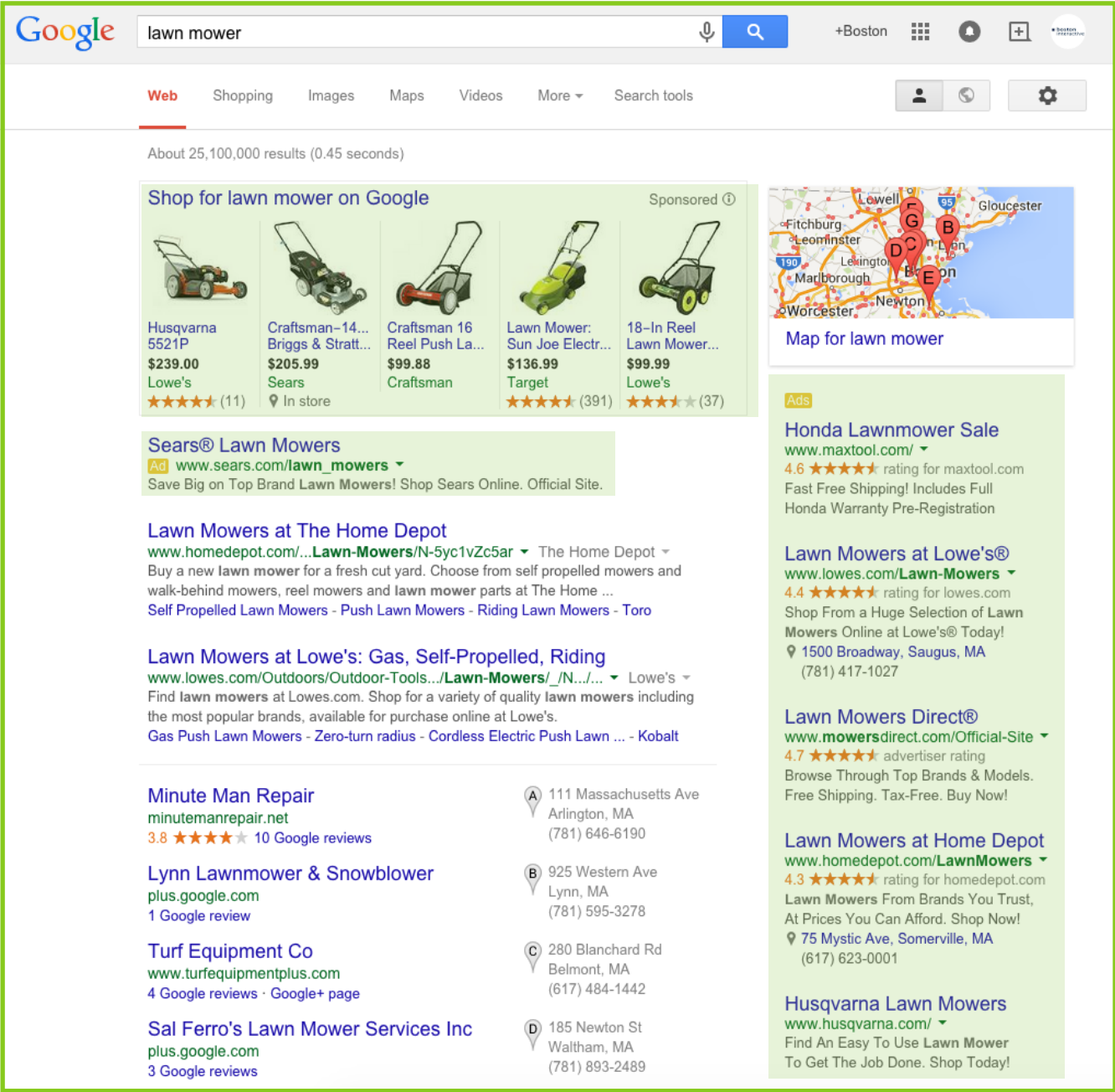
Paid search (commonly known as pay-per-click or PPC) is a more aggressive approach to search engine marketing, especially compared to SEO. Paid search is a form of advertising in which you pay for ad placement on search engines.

All paid search ad platforms, such as Google’s AdWords, allow you to buy ads based on the keywords you wish to be found for. Unlike SEO, where the ranking of your site’s keywords occurs organically (i.e., naturally over time), paid search gives you the chance to immediately rank for competitive keywords at a price.

The Bidding Wars

These paid search platforms use a bidding system for ad placement. You tell Google how much you’re willing to spend on a keyword, and Google shows your ads to users based on the current price of that keyword.

All parts of SEM, including SEO and paid search, are ongoing processes that require constant monitoring, strategizing, and analyzing. A “set it and forget it” mindset will result in a loss of rankings over time.



About Boston Digital

We are Boston Digital

We're a tribe of tech and marketing fanatics helping brands find their Digital Mojo. We're driven by untapped insights, high-tech experiences, and outcome-driven design to crush your marketing goals.

What is Digital Mojo?

Digital Mojo is that special something that sets your brand apart. It's the lens that all experiences, content and creative are developed through, ultimately connecting your brand to the people who need it most.

Our Belief

Your website is indistinguishable from your brand identity. It lives at the foundation of your digital ecosystem, so it's the center of our attention. Digital excellence starts with a world-class website and catches fire with brilliant digital marketing.

For more information or to schedule a FREE consultation

Call **(617) 241-7977** or visit **bostondigital.com**

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