7

Making Websites That Work

Building and maintaining a website is challenging work: The web team needs to balance technology, design, branding, functionality, and the needs of multiple types of website visitors, while maintaining the security and freshness of the website. When making decisions about website enhancements or revisions, you need to balance the needs of website visitors, search engines, and the technical and marketing staff who maintain the website.

All too often, a critical voice is missing from these discussions: the voice of the website visitor. Ensuring that the website supports visitors completing tasks can make a dramatic difference in the effectiveness of a website and give you a critical competitive edge. This chapter covers the basics for optimizing the user experience of a website to improve conversion rates (for example, leads and sales). We also touch on the management tasks underpinning successful websites.

Improving User Experience and Conversion Rates

Driving website visitors is not enough. The route to turn a website visitor into a lead or customer hinges directly on the website's quality and the difficulty of the process leading to a "conversion."

A website *conversion* occurs the moment a prospect (a visitor to your website) becomes a lead or a customer by submitting an online contact form or purchasing online, respectively.

Because web traffic may vary season to season or day to day, we focus on the conversion rate above raw conversion counts. The *conversion rate* is the number of visitors who complete a transaction divided by the total number of visitors, expressed as a percentage in Equations 7.1 and 7.2. The more conversions, the better. The higher the conversion rate, the better.

> **Equation 7.1: Lead-Generation Conversion Rate**
>
> Lead generation = [(Visitors who complete forms) / (All visitors)] x 100
>
> **Equation 7.2: E-Commerce Conversion Rate**
>
> E-commerce conversion rate = [(Visitors who buy) / (All visitors)] x 100

We are often asked for a ballpark conversion rate, an objective standard by which to judge the performance of a website. Whether your conversion rate is good or bad depends on your market, and is influenced by things completely beyond your control (such as the purchasing power of the people who want to buy your stuff).

So instead, we evaluate whether the rate is increasing or decreasing compared to the same time last year (to eliminate seasonal and even day-of-week effects) and what changes to the website or web content influence the rates positively or negatively.

The ways to improve conversion rate include affecting the numerator or the denominator of the percentage (refer to Equations 7.1 and 7.2).

Businesses can increase conversion rates by improving the pool of people in the denominator: the total number of visitors. Businesses improve the denominator through bringing qualified visitors to their website through targeting search engine optimization (SEO), paid search, or banner ad campaigns (covered in the sections, "Evaluate Your Keyphrases in the Context of the Entire Word Market" in Chapter 5, "The Audience Is Listening (What Will You Say?)" and "Define Your Market" in Chapter 8, "It's All About Visibility").

This chapter focuses on improving the numerator: increasing leads or sales by providing quality information and an easy transaction on the website.

There are several levels of user experience (UX) sophistication in website design and development. The most basic level is simply to avoid annoying your users. Instead,

follow web conventions, visually highlight user goals, shorten difficult activities (simplify forms or reduce screens in the shopping cart), and handle errors carefully.

Beyond the basics, tease out the nuances for your market and your website by applying user research and testing on your website with real potential customers or clients.

The Basics: What to Fix Before Testing

One of the sadder days in our recent professional life was a meeting with a branding and web design firm to discus a design composition ("comp") for a joint client. The comp was an evocative image with minimal text, beautiful in its simplicity. Unfortunately, the company logo was at the bottom right rather than the standard top left. The comp looked like an inviting print ad, but not like a usable website.

The dominating image and minimal text would have made the home page invisible to search engine spiders, and the placement of the company logo in the bottom right of the design meant that any users who did find the website would have to relearn years of training that client logos, and the click back to the website's home page, reside in the top left.

Worse, when we challenged the team on this, they replied something like, "This company's audience is smart and tech-savvy, so they will figure it out. We don't have to follow web conventions." Sigh. Although perhaps that's true on one level (motivated people will figure it out), the merely curious or unmotivated will just leave.

Follow Web Conventions

Instead of asking your web visitors to learn the one-of-a-kind interface you've designed for your website, let visitors use the few moments you have of their attention to engage with the content (media, prose) of your website to determine whether to stay and learn more.

Here are a basic set of web conventions for web design and development:

- In Western languages, we read from top left to bottom right, and we have come to expect (generally) the company logo at top left, clickable to link back to the website's home page.

    Some websites that have alternate language versions with different expectations (for example, one English version that is read left to right and a Hebrew version that is read from right to left) will actually swap the position of the logo in different languages to adjust for the change in reading direction.

- Place a search bar or quick links (to a shopping cart, for example) in the upper-right corner for Western languages.

- Make desired actions stand out visually. Buy buttons should look like buttons and stand out from the text. Conversely, items that are not clickable should not receive visual button-like treatment.

- Support navigation on your website for folks who like to browse and for folks who like to search.

  Caveat: If you implement website search, make sure it works well.

- Links to other content should follow typical web styling, using underline and different colors for both unvisited and visited.

  Some usability experts suggest that links should always be web-standard blue when unvisited and purple when visited, following the original web conventions. That's a judgment call, but certainly don't make links look like regular nonclickable text.

- Consider accessibility. Make sure your website can be understood and function without JavaScript and images.

- Check the visual design against standards for the colorblind. This can be done via third-party websites, such as http://colororacle.cartography.ch or www.vischeck.com).

On Key Pages: Form Optimization Basics

For a lead-generation website, make the form as simple as possible to get your first contact sales team the minimum information needed to contact the prospect. Essentially, you need to balance the amount of information you request against the prospect's interest in your services and your company.

You don't ask people their salary or the cost of their home or car when you first meet them at a networking party, so why is asking for the visitor's company's annual budget for [your service] in your first encounter acceptable?

What's our ideal lead-generation contact form length? Try the absolute minimum needed for someone on your team to contact that person back to have a conversation: name, email, phone number, and preferred contact method.

For an e-commerce website, simplifying and signposting the path from product selection to purchase should decrease shopping cart abandonment and increase sales.

The process might be something like this:

1. Choose items.

2. Provide shipping information and choose shipping method.

3. Provide billing information.

4. Confirm purchase.

Let shoppers know where they are in the process and let them move between steps to make corrections. Best case is to use persistent information (shipping choices) in later sections if visitors need to go back to previous screens (perhaps to change a quantity, for example).

In addition, because a credit card purchase is involved, it is important to signal that the website has taken the appropriate security measures to be safe (and, of course, to actually to do so). These include Hypertext Transfer Protocol Secure (HTTPS) transactions, but can go as far as displaying badges from transaction security firms, such as VeriSign.

Template-Level: Automated Attention Analysis

An easy way to take advantage of known UX design best practices is to submit website or page layout designs to automated analyses before coding them. Online tools such as AttentionWizard.com review a design and predict where the viewer's attention would focus on the design.

It applies rules drawn from studies of human visual processing to create "virtual heat maps" predicting where the viewer will look on the page design. The website's software analyzes contrast, the presence of objects, and visual emphasis (whitespace, size). It can help identify whether all the visual emphasis, say, is on the Privacy Policy link rather than on the Buy Now button.

In Figure 7.1, you see that the image and logo at the top of the page is predicted to absorb most of the visitor's attention, with the top of the form attracting some attention. The form itself and the Submit button at its end have little visual impact.

Figure 7.1 *Automated analysis of a landing page by AttentionWizard.*

Caveat: These types of tools predict where people's eyes focus in the first milliseconds that the visitor reaches a page.

They can't take into account

- Any of the context that people bring to the website

- The actual content (such as labels) of the website

These tools only help you predict what people immediately notice on a page and can never replace studying how people actually use your website.

On Every Page

On each and every page of your website, you should do some key checks: Is your page-load time as short as possible? Is your copy at the right reading level? Are your calls to action obvious and easy to use?

Minimize Visitor Wait Time

Now that we're used to 24/7 Internet connectivity, we hate to wait even for a handful of seconds for anything. Ever.

Usability expert Jakob Nielsen's research has been consistent over the years that website response times less than 1 second feel "seamless" to website visitors, whereas responses between 1 and 10 seconds seem increasingly long to people, and over 10 seconds people will just leave the website (www.useit.com/alertbox/response-times.html).

The Site Performance tool within Google Webmaster Tools places the line between fast and slow websites at 1.5 seconds, which is the 20th percentile value. So if your website pages load in less than 1.5 seconds, your website is faster than 80% of the other websites. Something to strive for!

The converse is something to fear: Your website needs to avoid making visitors wait; otherwise, they'll go somewhere else. You can see an example of a slow website in the results from Google Webmaster Tools shown in Figure 7.2. You can find more information about how to access Google Webmaster Tools in "Submit These Files to Google Webmaster Tools" in Chapter 8.

Looking for other reasons to minimize wait times on your website? How about this: Google uses load time for your website as part of its input into its ranking algorithm, so it affects your organic search position.

Several websites and scripts are available to help your web team identify, prioritize, and optimize slow-loading resources. Google has even included reports on load time and optimization tips right into its Google Webmaster Tools dashboard.
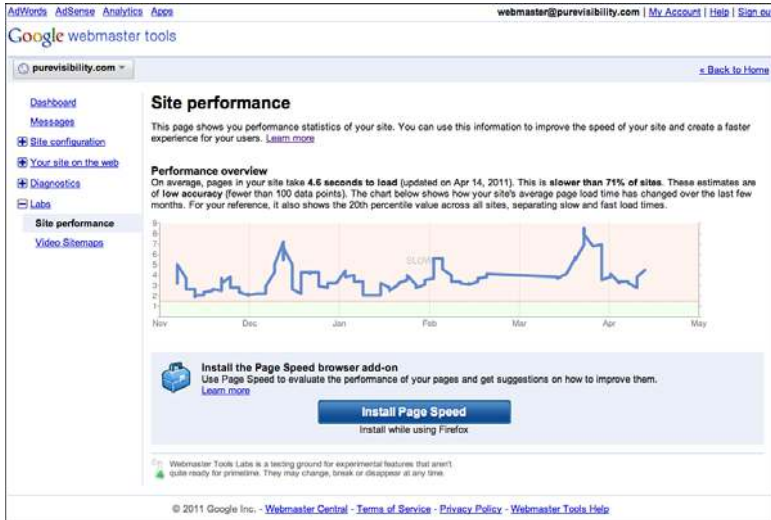
Figure 7.2 *Website load time information in Google Webmaster Tools.*

Calls to Action

Items to review on every page include the presence of calls to action. Thanks to search engines and external links, people can land on any public page of your website as their entry point.

They could start deep into the customer service FAQ or deep in your product catalog. Is it clear to them where they've landed? You might consider going through Keith Instone's navigation stress test, detailed on his website `http://instone.org/navstress`.

Key checks: If a user wants to make a purchase or contact a sales representative, is it clear from each page template in your website how to do so? Review each to make sure. Double-check that your calls to action are in view in the content area on each page within the common screen resolutions of your visitors (available from your web analytics).

If your website has a decorative header that users immediately scroll to get out of the way, and your calls to action are in your header, they won't see them when they need them.

As Figure 7.3 shows, companies can reap large increases in prospects' willingness to share their contact information once they can find where to submit it.

There is some noise in this data, but the conversion rate was generally much higher after two website improvements:

- Separating buttons on a web form to reduce data entry errors

- Placing a call to action to find a nearby location (by submitting a ZIP code via search) on every page

You can see that lead form conversion rates increased over than the same time the previous year, resulting in over 100 more lead forms completed in 2009 compared to same period in 2008. Assuming a constant lead-to-sale conversion rate after the web form submission, this increase should have resulted in more sales for the company.
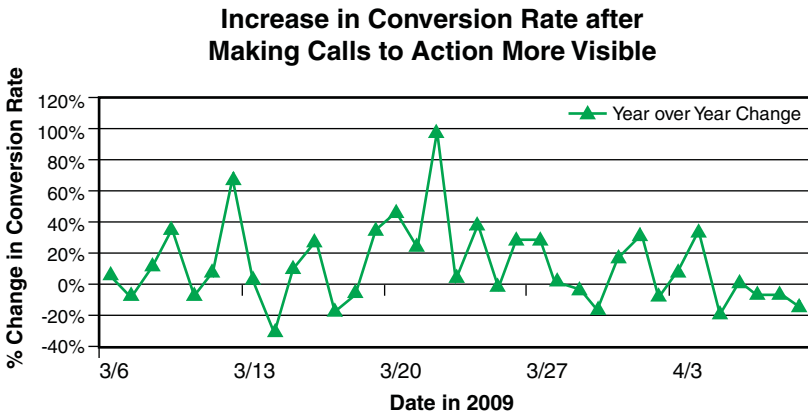
Increase in Conversion Rate after
Making Calls to Action More Visible

Figure 7.3 *Increases in lead conversion rates after increasing emphasis on and prevalence of the call to action.*

Check Your Reading Level

Another item to check on every page is the reading level of on-page copy. Make sure your copy is not overly technical or difficult to skim, because website visitors tend to skim before reading closely.

Jakob Nielsen's studies suggest that people read about 20% of the words on a page (www.useit.com/alertbox/percent-text-read.html). You can check the reading difficulty of your pages through online reading-level tools, but you can also check reading level within most common word processing programs.

Rules of thumb for website reading level targets range from grade 5 to grade 8. It can be more useful, however, to assess the reading level of your website copy against your competitors' website copy and against trade publications or news outlets important to your audience.

The average reading level of a technical website used to support a high-ticket software subscription purchase can inch a little higher than one aimed at busy folks on the go who might be using smartphones to surf the website.

Imagine Your Website Through Your Persona's Eyes

The previous list covers many best practices, and because you used the process described in "Develop Website Personas" in Chapter 5, you can get much more specific. With your personas and scenarios in hand, you can "test" your website by performing a cognitive walkthrough.

In a cognitive walkthrough, a group of usability professionals not responsible for the design take the website's target personas and (in his or her imagination) walks through a scenario or task flow to identify stumbling blocks. This should be done iteratively with different personas, and it can identify any show-stopper issues to remove before testing with end users.

Beyond Best Practices: User Research

Looking at aggregate data about what people do on your website is fascinating. It generates endless questions and hypotheses about why people behave the way they do.

Quantitative user analysis helps gain more insight into behaviors on forms and individual pages of your website. Surveys may give you some broad motivations and summary statistics on interests.

However, the only way to answer the "why" questions is to get in touch with individuals in the pool of website visitors, ask them to perform some typical tasks, and observe their interactions with your website or prototype.

Where Do Surveys Fit In?

Surveys are quick, easy, and automated. It's possible to whip up a quick survey of 10 questions on an online tool, such as surveymonkey.com or zoomerang.com, to blast out your questions to an email list.

These tools tally responses in a spreadsheet to give you quantitative insight into what people say they do or want to do. The types of round statistics useful in framing discussions (X% of U.S. households with incomes over $Y use search engines on a daily basis) are obtained through surveys.

Surveys are often used in website brand assessment, to see whether the brand name is recognized, what associations people have with the brand, and what competitors others may be using. They are less useful in UX research in part because sometimes you have to ask "why" three, four, or five times to get to the real underlying motivation for a preference or an action, and the quickness of a web form interferes with that deeper level of inquiry that can unfold in a one-on-one interview.

In addition, survey design is a discipline all of its own. Without effective question design, your data may be useless. Beyond that, people do not always do what they say they do, so actually observing them is critical to real understanding.

Like web analytics, survey data can be used to point out areas to research more closely, but doesn't replace user inquiry.

Quantitative User Research: Form Analytics, and A/B Testing

When you set up your website to gather data on visits, goals, and exits, you can mine your web analytics data to determine the UX pain points you should research more completely.

Review metrics such as page abandonment to determine problem areas:

- Where in the search results or shopping cart process do people give up and leave the website?

- Which are the highest traffic parts of your website where a small change in conversion rate of visitors to leads or customers could make the biggest impact?

Use your web analytics to discover and prioritize website problem areas for deeper investigation. The highest priority areas are typically landing pages for paid activities (because you're paying to get people there) and product selection and shopping cart processes.

After you've identified priority areas for close study, your next step depends on the type of pages you want to optimize.

Form Analytics

If it's a form page within your lead-generation system or shopping cart, you can review abandonment rates on a page-by-page basis through setting up a conversion funnel in Google Analytics. To do so, you let Google Analytics know the expected sequence of pages or steps in the shopping cart, by pasting each step's URL into the Goal Settings dialog (see Figure 7.4).

A review of your funnel analytics (Figure 7.5) tells you on a page-by-page basis where your lead contact process or shopping cart is failing.

For a simple lead form, this might be only one page: the form itself (see Figure 7.5). In this case, it's hard to drill into what about the form is deterring visitors.

You can get deeper form analytics on a field-by-field basis through a third-party tool such as ClickTale.com. Among other items, ClickTale can tell you how long people spend on the form, how they move their cursor or mouse around when interacting with your form, and which fields people fill out before abandoning the form (see Figure 7.6).

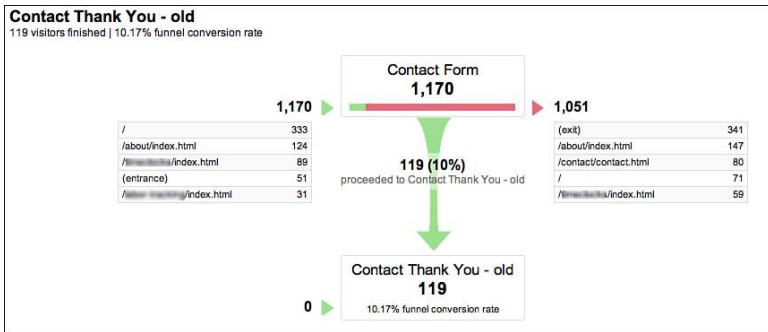**Figure 7.4** *Goal Settings dialog within Google Analytics.*

Figure 7.5 *Conversion funnel for a one-page form in Google Analytics.*
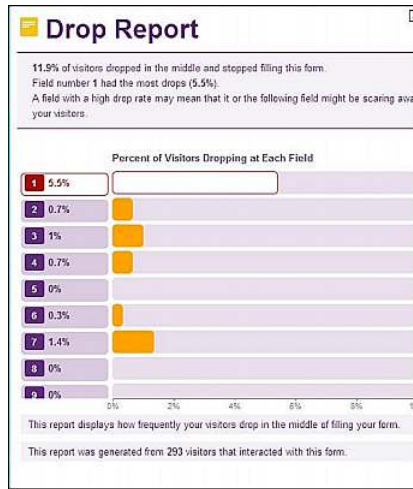

Figure 7.6 *Form analytics report from ClickTale.*

A/B Testing

If a problem could be solved in a couple of different ways, you can compare options by building out both versions and observing goal conversion rates on each. Google Website Optimizer tool can randomly show alternate versions of the page to the visitor to allow seamless testing.

"How to Measure" in Chapter 6, "Putting It All Together and Selling Online" touches on page-level landing page optimization tests using Google Website Optimizer. Depending on the ease of creating and deploying alternatives, however, you might test "paper prototypes" of the redesigned pages to get feedback from your users before you invest in building new pages.

Qualitative User Analysis: Observations, Usability Tests

Usability testingis an important part of creating a website that works. It is often ignored because it can be expensive, time-consuming, and ultimately a messy way of collecting data.

Your sample sizes are usually small, forcing you to try to look past the idiosyncrasies of individuals to try to find commonalities and underlying problems. Your data may conflict, forcing you to choose what issues to address and what to ignore for now.

You're not going to find every issue. Yet, it is immensely cheaper than wasting your web investment and frittering away the attention of potential customers in wrong-headed websites and forms. It's also quicker, in the long run, to design the website so that it's easy to use from the beginning, instead of uncovering problems after you've launched and need to redesign and relaunch.

So yes, you won't find every issue, but you'll likely find the big ones, and will save time and money in the long run. We encourage you to embrace usability testing as an essential step in your design process.

Initial user research can start with as few as 5 to 10 observations or scripted usability tests, as long as the participants represent real clients and customers. Although to students of statistics that is an indefensibly teeny sample size, that small number usually suffices to identify the underlying problem for the rest of the user population.

The larger and more expensive the fix or the more critically important the website (say, heart transplants versus emailed Valentine's Day cards), the more users you'll want to include in your preliminary testing before rolling out the new feature or tweaked process.

Table 7.1 summarizes many research activities involving direct contact with website users. The goal is to combine multiple sources of information to produce a rich recommendation to help you maximize your return on your website investment.

People may not always do as they think or say they do, so our top choices here are observations and usability tests which focus on what people do (instead of what they think or say).

Table 7.1 User Research Techniques

Type	Description	Application
Card sorting	An activity where users organize and sort labeled index cards to create categories.	Categorize keyphrases for SEO (see "Word Market Analysis Process" in Chapter 5). Redesign your website's information architecture or navigation. Prioritize information.
Interviews	Scripted questions to understand motivations, context, and goals.	Understand people's motivation and workflow.
Observations	Watch your participant use your website or a competitor's.	An excellent starting point. Understand what people actually do on the website. Identify concerns outside the investigator's pre-conceived notions or priorities. For this reason, observations may not result in consistent data from different user observations.
Usability testing on prototype	Testers create prototype versions of website designs (such as a sketch on paper, a design comp, or an interactive online prototype) with a scripted scenario.	Understand what people would do with a system that has not yet been built. Test early design concepts; useful on a shoestring budget as it involves little or no coding, depending on what kind of prototype you use. Good if your IT department is overwhelmed or your content management system (CMS) is cumbersome and you can't make test pages.
Usability testing on working website	Instruct participants to attempt scripted actions on the website. Observe their efforts via web conference software, usability testing software, or through a one-way mirror.	Understand what people actually do on a specific task. Test an existing website to prioritize updates. Test late stage design alternatives. Our "go-to" technique for identifying barriers to better performance.

Logistics: Test Scenario, Recruiting, and Rewards

You have bought the argument. You're ready to test your website with some real, live users. What next? Well, you need to create your test plan. Will you go to the user? Or will they come to you?

Outline the goals for the test and the scenario you'll ask the participant to attempt to follow. You should test your test scenario on a colleague before running it on real folks, just to make sure it is clear, accurate, and simple.

Then, go and get some test participants. You can try

- Online classified websites, such as Craigslist

- Recruiting from associations who meet your target user's characteristics (for example, have a particular job title or professional affiliation)

- Recruiting from your own network (which is kind of circular, because you should prefer people you don't already know)

- Drawing names from contact or customer databases

- Recruiting visitors who visit your website using a pop-up recruitment form, such as what is provided by Ethnio.com

We tried all these methods for different projects, and it's easy to get bogged down in recruiting for very narrow characteristics for specialized websites. Recruiting users on the website for remote usability testing via web conference software is our favorite method for most situations.

We're catching people when they're on the website of interest, much easier than trying to attract them when they're doing something completely unrelated (such as reading their email from a professional listserv or shopping for a new coffee table on Craigslist). Simply provide the minimum instruction to get them started.

In the recruiting email, ad, or online pop-up, we usually offer a small gift for participation, something like a $50 gift certificate to a popular store.

Don't forget to explain the purpose and activities of the user research, and ask for the website visitor's consent to participate in the study. You can see one version of this type of consent request at http://www.lapetite.com/consent-form/. You should view this as a legal document and keep good records for all participants.

Moderating a Test

While moderating usability tests, it's temping to intervene. Your own empathy draws you to help the person you can see is struggling to "get it right." Don't.

Watch, take notes, and intervene only if the person comes to a complete stop, if it looks like the study is about to be derailed, or both. Watching real users interact with your website is your goal, and because your website typically does not come with a human guide, it's best not to jump in and provide one during your usability tests.

It **is** your job, however, to probe the participant for more information. You should ask questions like "what are you thinking right now?" or "tell me about what this means?" or "I don't know; what do you think will happen when you click that?"

Of course, it's important that your questions don't lead the participant or color his or her impressions of the website.

Tip

Want to learn more about practical, hands-on usability methods?

A good starting point is Steve Krug's *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems.*

I've Got Data, Now What?

After you've tested with enough folks that you're seeing some repeating patterns in the results ("wow, almost everyone misses the call to action in the header because they scroll below it"), it's time to review, reflect, and prioritize.

Noting the prevalence of some problems with the website and their relative severity (did they prevent the person from buying or filling out a form?) should help when prioritizing issues. Check what you saw in the usability testing against your web analytics. Are the patterns in agreement?

After you decide what to do, you might need to convince your colleagues. For that, you can rely on their human powers of empathy.

Video clips of tests are particularly useful in persuading people to make changes on the website. The pain you and your team felt while people struggled with the website?

Use the clip from the test showing the person flailing between pages on the website that don't have the information she needs, saying out loud, "Gee, I thought I would find it here, but yeah, I've been here already and it isn't on this page." It'll speak volumes and can help motivate change.

UX Checklist

Use this UX checklist to make sure that you've covered all the bases:

1. Do the minimum:

    a. Meet web conventions and standards.

    b. *Minimize waiting times* for page, media, and form results to load.

    c. Make your *forms simple* to fill out. Don't pry beyond the context of the initial inquiry. Let your sales team get that context when the time is right.

    d. Ensure you have *clear, appropriate calls to action* in every page template.

    e. Make sure your reading level is appropriate to your audience.

2. Optimize by watching people trying to use your website:

    a. Schedule observations or user tests.

    b. Use your web analytics to identify and prioritize user stumbling blocks for deeper inquiry.

    c. Optimize your forms using data from specialized form analytics tools.

3. Head off disaster by testing designs and pages prior to launch:

    a. Check your design with automated attention tools to ensure the right elements of your design pop out at users when they first see your website.

    b. Confirm new designs before coding by using "paper" or digital prototyping with real users.

Website Planning and Maintenance

A website is not a short-term project where a team drops in, sets up a beautiful, easy-to-use, content-rich website and then disbands to other commitments, leaving a never-changing online brochure. Internet marketing requires a long-term plan to maintain and enhance your content and engage with your target audience.

Launching a website redesign or refresh is a particularly risky period for online marketing campaigns, so we pay special attention to website relaunch planning and checklists.

Plan for Graceful Failure

Of course, when you're planning your website, most of your time is focused on the niceties of the new design, perhaps the color scheme or the exact placement of the

logo and tagline. A common hobgoblin in web design is not planning for... well... when links go awry and pages move.

Eventually, visitors try to get to a page on the website that doesn't exist, either because a link was broken, because of a problem with the server, or because they just typed in the wrong address. The ability of a website to help people return to pages that exist is a good measure of its resilience, and is a fundamental part of any complex, well-maintained website.

The default action of a web server when someone requests a page that does not exist is to show a 404 error page, so named because 404 is the status code returned when a requested item is "not found." The default 404 page is typically uninformative and outside of the look and feel of the rest of the website.

Figure 7.7 shows the default page offered up by the Apache web server. Similar default pages are shown by other web servers. Figure 7.8 is the default Page Not Found error page from a Microsoft Internet Information Services (IIS) web server. You might be shocked by what you see when you go to big name websites, or even your own, and type in a nonsense filename. Try it!
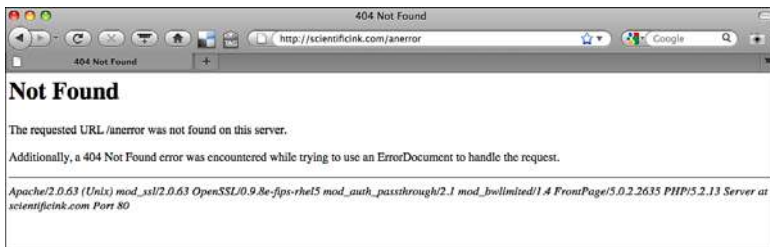

Figure 7.7 *A standard (but disorienting) file not found error for an Apache web server.*
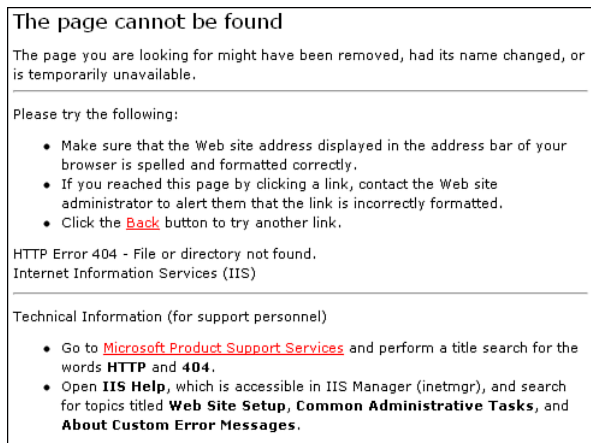

Figure 7.8 *The standard File Not Found error page on a Microsoft IIS web server.*

Default 404 error pages don't provide links to navigate to the intended website after someone has come in via a broken link, so anyone hitting one of these pages has landed on a dead end. Anyone who mistypes a page or hits a broken link will be stranded on a page without the website's global navigation.

This page runs the risk of losing qualified, engaged visitors, and can be improved with a resilient 404 page with navigational links back to the website.

All websites should have a custom 404 error page that provides website navigation and help for visitors but does not redirect them automatically. Figure 7.9 shows the real custom 404 page for a personal blog. Figure 7.10, however, is an example from a lead-generation website, the Accuri Cytometers website.

In both cases, the error page is contained within the look and feel and navigation of the website. The Accuri Cytometers page (see Figure 7.10) also contains calls to action in the footer and the search box is prepopulated with the name of the file that was not found.
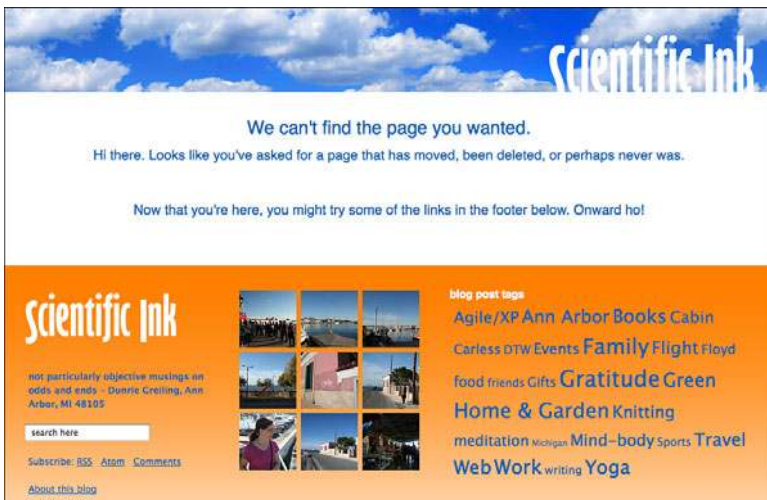

Figure 7.9 *A custom File Not Found page for a blog.*

Automatically Track Your Page Not Found Errors

You should work with your web development team to capture information about 404 errors, even when you have a nice user-friendly page like Figure 7.10, because your visitor should connect with your content immediately. Your team can use a server-side script to catch the filename not found and the referring web page (on your server or another).

Then, use this information to retouch broken links on your own website, or identify incoming broken links from other websites that you can ask be retouched.
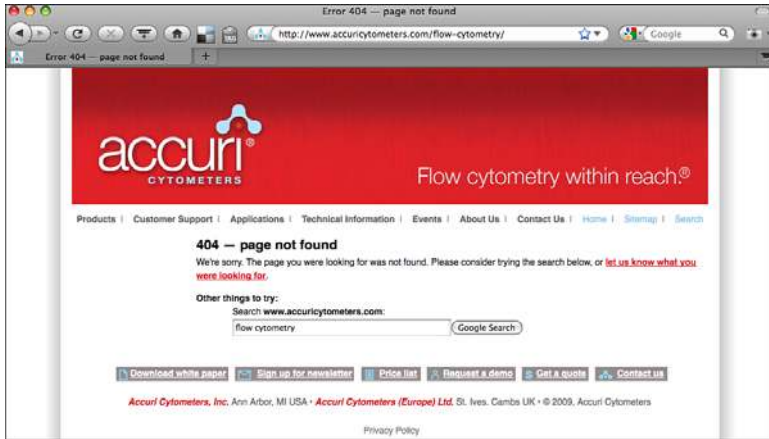
Figure 7.10 *A custom 404 error page triggered by an attempt to visit a page on the website that doesn't exist.*

Another nice option is to add custom web analytics tracking to your 404 page so that you can view and count files not found within your web analytics package, instead of asking your web team to investigate server log files or the like.

This option should be available within standard analytics packages. For Google Analytics, search "404 tracking within google analytics" or go to www.google.com/support/analytics/bin/answer.py?hl=en&answer=86927.

Website Maintenance Tasks

To help you plan your efforts, here's a rough guide to tasks (and their frequency) for website maintenance and enhancements.

Weekly/Daily Tasks: Monitoring and Implementation

These jobs need to be done on a daily or weekly basis:

- Keep an eye on your paid search program numbers.

- Review, approve, and publish blog posts.

- Review mentions of your brand on social websites through an RSS reader subscribed to an open search, a web "clipping service" such as Google Alerts, a free dashboard such as NetVibes, or fully featured dashboards such as Alterian SM2 or radian6, available by subscription.

- Consider or delegate addressing issues that merit a public or private reply.

- Participate in conversations on Twitter, Facebook, LinkedIn (or social website du jour) as applies to your target audience.

Monthly Tasks: Implementation

Handle these tasks every month:

- Review progress and assign the next step for tasks within ongoing Internet marketing initiatives.

- Check the parts of your website that you intend to be dynamic, such as news or events.

- Take care of open job descriptions; archive or note which positions are no longer open.

- Check the events calendar and news or press release section. Make sure it's up-to-date with your planned editorial calendar.

- Review your website analytics, and see whether anything appears to have gone awry with the numbers. Large changes in the numbers may indicate real seasonal or market changes, or it could be as simple as a tracking script that was inadvertently deleted from the website and needs repair.

- Does any of your new content have a full set of `<title>` and `<meta>` description tags? See "Page-Level SEO Best Practices" in Chapter 8 for guidelines.

- Does any new content have full web analytics tracking in place? Sometimes landing pages created for special email or banner ad (or even paid search campaigns) may lack tracking scripts. Make sure all website templates carry web analytics scripts as a default.

Quarterly Tasks: Trends and Planning

On a quarterly basis, you should

- Review your organic rankings on key terms and plan to address any losses and build upon gains.

- Ask your technical team to double-check your infrastructure:

  - Do you have the most up-to-date version of your CMS? If not, do you need it?

  - Does your development team need to deploy a security patch for your CMS or blog?

  - Do you have the most up-to-date version of your comment spam filtering plug-in for your blog?

- Plan for new content, based on your editorial calendar.

- Make assignments and deadlines for this quarter's anticipated press releases and events.

- Leave placeholders in your schedule for a few blog posts or unanticipated website content updates.

- Review all pages of the website and landing pages for outdated information.

Annual Tasks: Planning

Tackle these planning tasks on a yearly basis:

- Plan the editorial calendar for the year based on your seasonal cycle and any new market initiatives (new product or service launches, software upgrades, and so on).

- Plan your budget and schedule for infrastructure updates.

- Review your information architecture against current web analytics and the requests of your UX or customer service team. Plan any updates.

- Update and extend the copyright years covered in your copyright notice at the bottom of every page. This can be done with a script to always include the current year.

SEO: EXCITING OR BORING?

We can't tell you the number of meetings we've attended where we've heard about shiny new custom-coded CMSs that a company is putting into place for a website redesign. But because the crackerjack developers have been so busy fiddling with the fun under-the-hood mechanics, they haven't had time to implement a few basic items such as unique and descriptive Hypertext Markup Language (HTML) title for each page or redirects from the old website navigation to the new one.

We have struggled with why this is, and ultimately, we have to come back to the idea that SEO infrastructure is not sexy. It isn't as cool as coding something from scratch and it isn't as pretty as an evocative Flash animation of a sunset or lighthouses that create an emotional connection with your brand.

It feels boring, rote, and like something you'll make time for when you have time to do things like floss between your bicuspids, which is never.

It is consistently deprioritized by web teams during website redesigns, and this neglect is more than a lost opportunity because it often entails a loss of search engine ranking for some period after a redesign launches.

Planning a Website Refresh or Relaunch

A website redesign is a project. Like any project, website redesigns sometimes get delayed, off-track, or even canceled. The common threats to web redesign projects come in the forms of scope, schedule, quality and cost.

Typically, website projects require scope vigilance because

- IT infrastructure concerns may derail or take over a marketing project.
- A new technology or plug-in may ease some concerns at the cost of changes in resourcing or cost.
- Competitive landscape changes may require scope or schedule to be renegotiated partway through the project.

Overcommitted IT or marketing resources might not be able to complete critical path tasks on schedule. While overburdened internal resources may be able to outsource some activities to maintain the schedule, outsourcing comes at the cost of subcontracting work that was budgeted to be performed in-house.

In addition, lateness from missed deadlines early in the project should never be made up by skipping quality control or user acceptance testing at the end. These tasks are consistently undervalued in website launch planning.

In our experience, SEO and UX considerations are frequently considered too late in the web development decision-making process to have significant impact. SEO and UX tasks get placed on the change request log instead of driving the design.

When critical UX and SEO visibility requirements end up on the change request log or prelaunch punch list, they get prioritized against items that are "actually broken" in bug triage discussions.

This is a terrible outcome for everyone, because it requires the technical team to do costly rework at the project's end. If these items are not done, these omissions negatively affect the website user, search engine users, and thereby the company's bottom line.

Redesign Project Roles

Essential roles in a website redesign process are as follows:

- **UX designer**, the person or team who specifies the website user interface to achieve project goals (such as to increase browse-to-buy ratio on an e-commerce website). This person may also be the information architect designing the website navigation.
- **User researcher**, the person or team who learns about your target customer to create useful and meaningful personas, and who plans and

conduct usability tests. This person may also be the information archi-tect who designs the website navigation. (Different organizations divide up these activities differently.)

- **Graphic designer**, the person who prepares the visual layout, look, and feel of the website. This includes color schemes, graphics, and cascad-ing style sheet (CSS) specifications.

- **Technical team**, the people in charge of the website infrastructure planning and implementation. These folks implement the UX and graphic design in the existing website infrastructure.

- **Content team**, the people in charge of writing or creating all the copy needed for the new website and all media (images, sound files, videos) required to populate the website's information architecture and content plan.

- **Testers**, the team in charge of verifying that all pages, links, forms, and transactions on the website work as planned. This includes verifying web analytics and conversion tracking scripts.

- **Marketing metrics owner**, someone in charge of making sure that the website is as trackable (or more) after launch as before and that the launch doesn't disrupt ongoing marketing campaigns, including organic SEO, paid search marketing, and any email campaigns.

- **Project manager**, the person who maintains the project plan, coordi-nates project details, and communicates divergence from agreed-upon schedules to project stakeholders (project team, executive sponsors).

These might not be individuals, but teams of people. These roles have different concerns in the project and ask different questions. The dilemma illustrated in Figure 7.11 is that the website's technical team may receive requests and require-ments from most of the other roles.

The technical team implements the graphic and UX design in the website. It also receives infrastructure requirements from the marketing metrics folks about track-ing scripts and landing pages for ongoing marketing campaigns, etc.

If the project is not managed well, the technical team may be asked to broker con-flicting requests from different teams.

Hard decisions on conflicting requests and requirements should be the negotiated by key stakeholders, and shouldn't be the burden of the technical team. Business requirements and cost/benefit analyses should drive these discussions.

Planning tradeoff and requirements prioritization conversations with all stakehold-ers involved is the key to building a successful website.
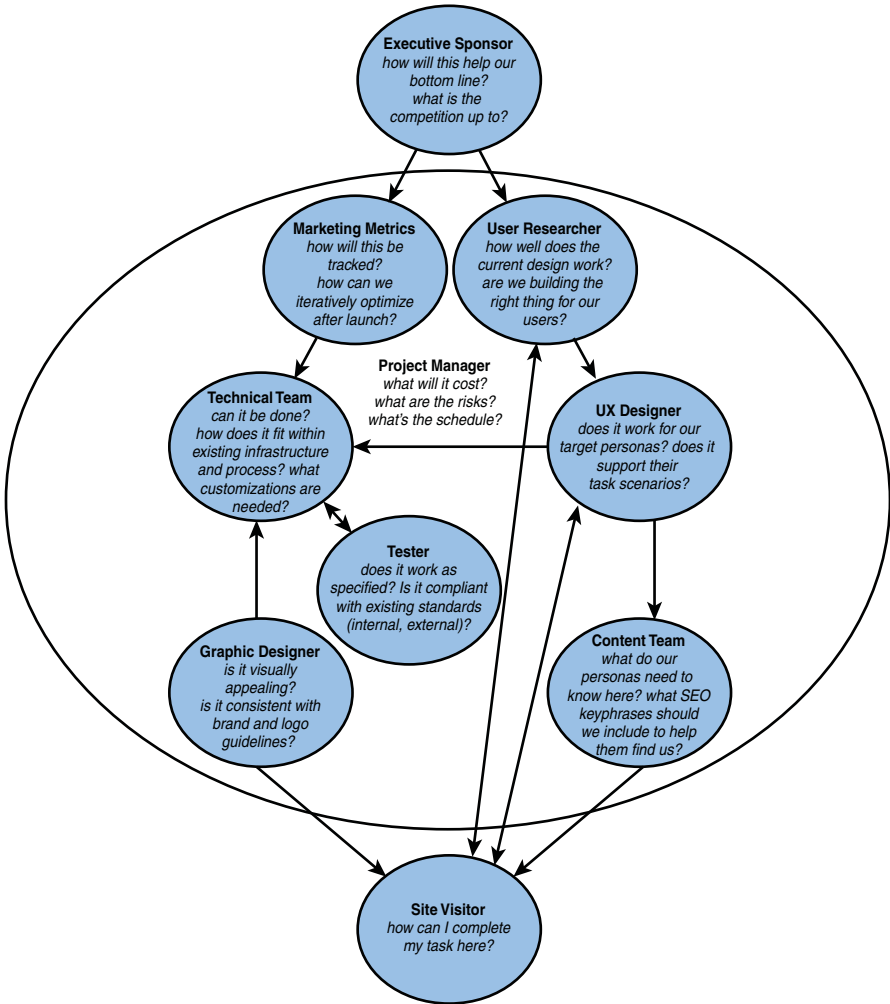
Figure 7.11 *Roles and areas of concern in a website redesign project.*

Alternatively, in small companies or on small projects, some of these roles may be played by the same person. For instance, you may have a UX designer who is also the graphic designer and content team. The drawback of having one person play multiple roles is that one role may be favored and the obligations of other roles may slide.

Common pitfalls include neglecting the testing phase entirely, skipping user research, or omitting Internet marketing requirements during project planning. The only way to avoid a web redesign morass is to start with clearly defined, shared goals and return to those project goals at junctures where tradeoffs need to be made.

Have the project team identify risks to the agreed-upon project scope and schedule. Meet regularly with all team members, including outside vendors, to ensure all parties are in agreement on next steps.

For the greatest ease and control, see whether you can break up a large project into smaller components to plan for many smaller victories for the project team. Vary either the infrastructure (CMS) *or* the design and templates (look and flow), instead of changing everything at once.

Simultaneously changing out the underlying infrastructure and the page content, information architecture, and the graphic design creates additional complexity and risk. It's tempting to do all of it at once, but much more risky and time-intensive.

If everything is new, it's impossible to ascertain which change had which effect. If there's a beautiful new skin and architecture, but the technical infrastructure is rough, it puts the entire effort at risk.

From the perspective of maintaining and building on existing SEO and paid search gains, transition things subtly, in as controlled a fashion as possible.

Website Prelaunch Punchlist

Quality control is critical ahead of a website launch. Yes, your team can update the website post-launch if there are any glitches, but best to have things as close to perfect as you can prior to launch and then plan post-launch work for optimization and enhancements rather than bug fixes!

Here's a checklist you can use before you launch a new website version:

1. Check links! http://validator.w3.org/checklink.

2. Spell check! http://www.spellwonder.com

3. Complete test cases identified in project planning activities.

4. Proofread the website.

5. If there was a previous website, please ensure the names of the pages stay the same. If the pages names cannot or should not stay the same, then redirects *must* be done.

   - Do 301 redirects from the old website structure to the new website structure, see the section "301 Redirects: Critical and Little Used," later in this chapter.

   - Update inlinks from other websites, including Google Places and other local directories if relevant.

6. People will still go awry. Create a human-friendly File Not Found (404 error) page.

7. Avoid removing within-site links to SEO critical content. If you remove a link to a deeper page from the home page, it could affect the ranking of that page. If you change the linking text of a page, that can also affect rankings.

8. Implement SEO best practices on all new content. See the section, "Page-Level SEO Best Practices" in Chapter 8.

   Spot check `<title>` and other `<meta>` tags for completeness.

9. Triple-check that analytics tracking code is available from *all* pages.

10. Check landing pages for consistency and check all links from landing pages for URL changes.

11. In case there is a host transfer, double-check the Contact Us form to see whether it's still working. Check the script:

   - Test the contact us form by filling out *all* fields and having it sent to yourself. Make sure it collects pertinent information for returning the contact, including some background on what their specific interest is.

   - Test all other forms in the website in the same way.

12. If the website is an e-commerce website, run trial orders.

13. Test any search functionality. (For example, if a search is supposed to work by name and stock-keeping unit or SKU number, test both names and numbers.)

14. Call all phone numbers on the website to make sure they're correct. (If there are too many, at least check the sales line.)

15. Test websites in multiple browser and operating system configurations. Prioritize the browsers and operating systems that make up sizable percentages in your website analytics. You might consider third-party services such as CrossBrowserTesting.com that prevent you from having to retain old hardware/software combinations for web testing.

16. Archive a copy of the old website, in case data is lost or incompletely migrated or to retrieve old copy or images for before and after comparisons.

301 Redirects: Critical and Not Often Used

Whenever a page moves through a name change or a directory name change, or perhaps because it was eliminated, folks and search engine spiders will see an error page. In this situation, your team should put in place two items: a helpful error page, and a permanent redirect to get visitors to the correct location.

This content mapping step preserves your "search engine equity" from the old page and tells the search engines where to find that content on your new website.

Define a signpost where the same or similar information can now be found on your website through a "301 redirect." Depending on your server configuration, the redirects are specified differently, but in general, they map from the old URL set to the new one.

The 301 redirect is an HTML status code, indicating that the page has permanently moved to a new location. It's different from the often-misused 302 redirect that indicates to spiders that the file's move is only temporary and that the old URL should stay valid.

A visitor simply receives a seamless redirection to the new page on the website regardless of the redirect status code, as long as the page is redirected. But search engine spiders pay attention to this status code, so please use the right one for your situation.

Reserve Budget for Post-Launch Enhancements

Website optimization is an ongoing commitment, and the best-designed websites can always be improved incrementally.

For this reason, it's wise to reserve a budget of 10% to 20% of the website cost to prepare and launch revisions and enhancements to the website driven solely by user behavior and user feedback on the post-launch website.

Case Study: Poor SEO Execution Hurts

Missing steps in a website launch can decrease your website's visibility immediately. Do this at your own peril!

Figure 7.12 (from an unnamed company) shows the impact on the organic visits to a website after a poorly curated website launch. In this case, the new website launch had improved content, an improved information architecture, and upgraded website infrastructure, but the team did not carry out basic SEO tasks.

When the URL structure changed from the old website to the new website architecture, the previous URLs on the website were not redirected (using 301) to their new locations. Folks arriving on both inlinks from referring websites and search engine spiders were stranded. In addition, the website launched with over a hundred duplicate page titles, denying spiders the critical information needed to categorize each page.

Although the year started strong, because of the impact of the website launch the website finished the year down by 10% over previous year's organic visits. Just after

the website launch in week 15, the organic visits was about half of its previous benchmark, though it recovered to two-thirds quickly, it took many weeks to get back to the previous year's level.

Because of this website's high-quality content and its efforts in creating links to its new architecture, this website's organic position and organic traffic recovered within 3 months after the website launch.

In the interim, the website had to pick up the missing organic traffic with increased paid search spend. Closer attention to SEO during the website migration would have minimized or eliminated the loss of visits.
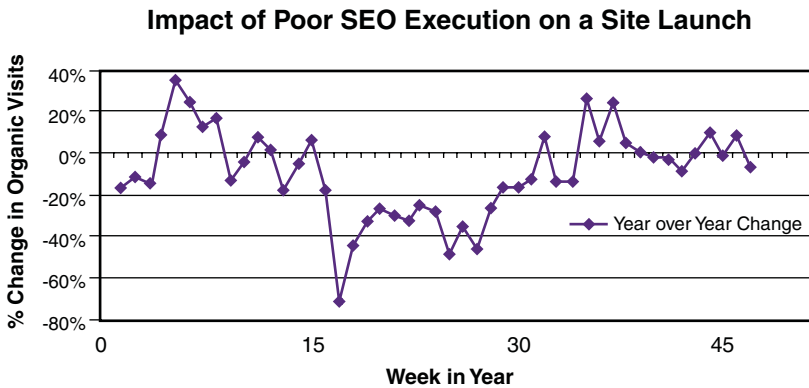
Impact of Poor SEO Execution on a Site Launch

Figure 7.12 *Year-over-year comparison of organic traffic to a website with a poorly curated website launch after week 15 of the year.*

In contrast, a website launch project that attends to SEO details can avoid losses and even achieve quick increases in organic visits compared to previous year benchmarks. Figure 7.13 shows the organic impact of the launch of Childtime's new website November 19, 2010.

Comparisons are to the same day (not date) in the previous year to account for day-of-the-week differences in traffic for this website. The spike comes from changes in visits during a traditionally low traffic time, Thanksgiving.
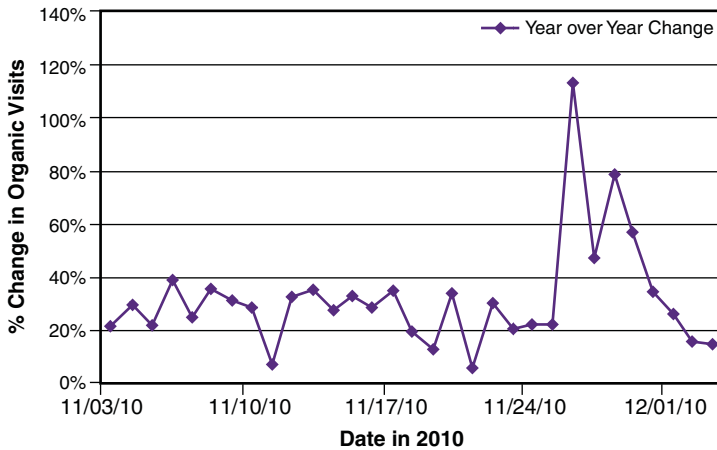
Gain in Organic Visits after a Website Launch

Figure 7.13 *Year-over-year comparison of organic visit increases through an SEO-attentive website launch.*

Summary

To make websites that work for your visitors, make sure you use Internet best practices to fix what you know you should, before you start to test your design. Put your best foot forward by

- Following web conventions. Only violate them intentionally and with good reason.

- Optimizing your contact forms, particularly on key pages.

- Analyzing your website template using an automated attention analysis tool, such as AttentionWizard.com.

- On every page, making sure you minimize visitor wait time, improve calls to action, and check the reading level.

- Imagining your website through your persona's eyes.

Now you're ready to go beyond the best practices and conduct some user research. Including usability testing and user data is a critical piece in any website enhancement process.

To research user behavior on your website

- Consider using a quick and automated user survey to get immediate quantitative insight.

- Look at abandonment rates for form pages by setting up a conversion funnel in Google Analytics.

- Compare two different solution options by observing the goal conversion rates on each, with A/B testing.

- Refer to the qualitative user testing techniques listed in Table 7.1, and conduct one or more of the following:

  - Card sorting

  - User interviews

  - User observation

  - Usability testing on a prototype website

  - Usability testing on your working or existing website

Finally, you should consider your website as an ongoing business-critical effort rather than a one-time project. Make sure you

- Undertake revisions and relaunches to the website carefully, including marketing metrics as a vocal part of the website project team.

- Attend to SEO concerns at launch or suffer traffic (and conversion) losses. This includes using 301 redirects for any URL changes.

- Don't strand your visitors. Plan for graceful failure (404 error pages).

- Reserve budget for post-launch optimization.